

CONSTRUCTION OF SPECIFIED ROADS

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SCHEDULE OF ITEMS

(Timber Sale)

Timber Sale BR SA

Road No. 3000290

Road Name N/A

Length (Miles) 0.07

[illegible]

SUB-TOTAL: \$ 11,110.67

TOTAL ALL ROADS: \$ 78,520.11

SCHEDULE OF ITEMS

(Timber Sale)

Timber Sale BRSBA

Road No. 3000292

Road Name	N/A
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Length (Miles) 0.03

[illegible]

SUB-TOTAL: \$ 13,554.40

TOTAL ALL ROADS: \$ 78,520.11

(Timber Sale)

Road No.	3000294-I
Length (Miles)	0.02

TOTAL ALL ROADS: \$ 78,520.11

(Timber Sale)

Timber Sale _____ **BRSBA**

Road No. 3000294-II

Road Name N/A

Length (Miles) 0.03

[illegible]

SUB-TOTAL: \$ 5,298.95

TOTAL ALL ROADS: \$ 78,520.11

(Timber Sale)

BRsBA

3000294-III

N/A

0.17

[illegible]

SUB-TOTAL: \$ 1,588.69

TOTAL ALL ROADS: \$ 78,520.11

(Timber Sale)

Timber Sale _____ BRSBA

Road No. 3000294-IV

Road Name	N/A
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Length (Miles) 0.07

[illegible]

SUB-TOTAL: \$ 477.41

TOTAL ALL ROADS: \$ 78,520.11

(Timber Sale)

BRSBA

Road No. 3000294-V

N/A

Length (Miles) 0.08

[illegible]

SUB-TOTAL: \$ 407.67

TOTAL ALL ROADS: \$ 78,520.11

(Timber Sale)

BRSBA

3000295

N/A

0.4

[illegible]

SUB-TOTAL: \$ 2,354.03

TOTAL ALL ROADS: \$ 78,520.11

SCHEDULE OF ITEMS

(Timber Sale)

Timber Sale _____ **BRSBA**

Road No. 3000500

Road Name N/A

Length (Miles) 0.09

[illegible]

SUB-TOTAL: \$ 5,810.87

TOTAL ALL ROADS: \$ 78,520.11

(Timber Sale)

Timber Sale _____ BRSBA

Road No. 3000510

Road Name	N/A
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Length (Miles) 0.05

[illegible]

SUB-TOTAL: \$ 6,728.88

TOTAL ALL ROADS: \$ 78,520.11

SCHEDULE OF ITEMS

(Timber Sale)

Timber Sale _____ BRSBA

Road No. 3000520

Road Name N/A

Length (Miles) 0.05

[illegible]

SUB-TOTAL: \$ 5,810.87

TOTAL ALL ROADS: \$ 78,520.11

SCHEDULE OF ITEMS

(Timber Sale)

Timber Sale	BRSBA
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100	100

Road No. 3000530

Road Name N/A

Length (Miles) 1.07

[illegible]

SUB-TOTAL: \$ 9,878.76

TOTAL ALL ROADS: \$ 78,520.11

(Timber Sale)

Road No.	3000605
Length (Miles)	0.6

TOTAL ALL ROADS: \$ 78,520.11

(Timber Sale)

N/A

Length (Miles) 0.01

4	\$	4,678.80
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SUB-TOTAL: \$ 5,086.55

TOTAL ALL ROADS: \$ 78,520.11

STANDARD SPECIFICATION FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS

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BRSBA

ROAD NUMBER

SECTION NO & TITLE	REV DATE	3000 292	3000 290	3000 294-I	3000 294-II	3000 294-III	3000 294-IV
101 - Terms, Format, and Definitions	2003	X	X	X	X	X	X
101 01 Meaning of Terms	1/22/2009	X	X	X	X	X	X
101 01 Meaning of Terms	1/22/2009	X	X	X	X	X	X
101 03 Abbreviations and Symbols	6/16/2006	X	X	X	X	X	X
101 04 Symbols	3/29/2007	X	X	X	X	X	X
101 04 Definitions	11/6/2007	X	X	X	X	X	X
102 - Bid, Award, and Execution of Contract	2003	X	X	X	X	X	X
102 00 Delete 102 in its entirety	2/16/2005	X	X	X	X	X	X
103 - Scope of Work	2003	X	X	X	X	X	X
103 00 Intent of Contract	2/16/2005	X	X	X	X	X	X
104 - Control of Work	2003	X	X	X	X	X	X
104 00 Deletions to 104	6/16/2006	X	X	X	X	X	X
104 03 Specifications and Drawings.	1/22/2009	X	X	X	X	X	X
104 03 Specifications and Drawings	2/22/2005	X	X	X	X	X	X
104 06 Use of Roads by Contractor	2/17/2005	X	X	X	X	X	X
105 - Control of Material	2003	X	X	X	X	X	X
105 02 Material Sources	1/18/2007	X	X	X	X	X	X
105 05 Use of Material Found in the Work	5/12/2004	X	X	X	X	X	X
106 - Acceptance of Work	2003	X	X	X	X	X	X
Conformity with Contract							
106 01 Requirements	7/31/2007	X	X	X	X	X	X
106 07 Partial and Final Acceptance	5/11/2004	X	X	X	X	X	X
107 - Legal Relations and Responsibility to the Public	2003	X	X	X	X	X	X
107 05 Responsibility for Damage Claims	5/11/2004	X	X	X	X	X	X
107 06 Contractor Responsibility for Work	6/16/2006	X	X	X	X	X	X
107 08 Sanitation, Health & Safety	3/29/2005	X	X	X	X	X	X
107 09 Legal Relationship of the Parties	6/16/2006	X	X	X	X	X	X
108 - Prosecution and Progress	2003	X	X	X	X	X	X
107 10 Environmental Protection	6/16/2006	X	X	X	X	X	X
109 - Measurement and Payment	2003	X	X	X	X	X	X
109 00 Deletions	2/17/2005	X	X	X	X	X	X
Measurement Terms and							
109 02 Definitions	6/16/2006	X	X	X	X	X	X
151 - Mobilization	2003	X	X	X			
155 - Schedule for Construction Contracts	2003	X	X	X	X	X	X
Contractor Quality Control Plan,							
155 00 Records	5/11/2004	X	X	X	X	X	X
201 - Clearing and Grubbing	2003					X	X
201 00 Deletions	8/5/2009					X	X
201 01 Description	2/18/2005					X	X
201 04 Clearing	2/22/2005					X	X
201 06 Disposal	2/18/2005					X	X
201 06 Disposal	11/4/2004					X	X
201 06 Disposal	11/9/2005					X	X
203 - Removal of Structures and Obstructions	2003						
203 01 Description	2/25/2005						
203 04 Removing Material	2/18/2005						

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ROAD NUMBER

SECTION NO & TITLE	REV DATE	3000 292	3000 290	3000 294-I	3000 294-II	3000 294-III	3000 294-IV
203 08 Payment	2/24/2005						
204 - Excavation and Embankment	2003	X	X		X	X	
204 05 Conservation of Topsoil	2/18/2005	X	X		X	X	
204 06 Roadway Excavation	3/2/2005	X	X		X	X	
204 06 Roadway Excavation	3/2/2005	X	X		X	X	
204 09 Preparing Foundation for Embankment Construction	3/2/2005	X	X		X	X	
204 10 Embankment Construction	3/2/2005	X	X		X	X	
204 11 Compaction	4/11/2005	X	X		X	X	
204 13 Sloping, Shaping, and Finishing	3/2/2005	X	X		X	X	
204 13 Sloping, Shaping, and Finishing	3/2/2005	X	X		X	X	
204 14 Disposal of Unsuitable or Excess Material	3/2/2005	X	X		X	X	
204 15 Acceptance	2/7/2007	X	X		X	X	
212 - Linear Grading	2003					X	
212 00 Complete Specification (composite road construction)	5/19/2005					X	
251 - Riprap	2003						
301 - Untreated Aggregate Courses	2003	X	X	X	X		
301 00 Title Change	3/3/2005	X	X	X	X		
301 01 Work	3/3/2005	X	X	X	X		
301 02 Material	5/16/2005	X	X	X	X		
301 03 General	9/14/2005	X	X	X	X		
301 04 Mixing and Spreading	3/3/2005	X	X	X	X		
301 05 Compacting	5/17/2005	X	X	X	X		
301 06 Surface Tolerance	3/3/2005	X	X	X	X		
301 08 Acceptance	2/7/2007	X	X	X	X		
301 08 Acceptance	3/3/2005	X	X	X	X		
301 08 Acceptance	3/30/2005	X	X	X	X		
301 10 Payment	3/3/2005	X	X	X	X		
303 - Road Reconditioning	2003						X
303 01 Description	3/2/2005						X
303 06 Aggregate & Asphalt Surface Reconditioning	8/5/2008						X
303 07 Roadway Reconditioning	3/2/2005						X
625 - Turf Establishment	2003					X	
625 03 General	2/25/2005					X	
625 03 General	7/2/2007					X	
625 04 Preparing Seedbed	2/25/2005					X	
625 07 Seeding	2/25/2005					X	
703 - Aggregate	2003	X	X	X	X		
703 05 Subbase, Base, & Surface Course Aggregate	8/14/2009	X	X	X	X		
703 07 FLH FP-03 Correction metric uscu	3/2/2005	X	X	X	X		
703 10 Flakiness Index and Adherent Coatings	4/11/2011	X	X	X	X		
703 10 FLH FP-03 Correction	3/2/2005	X	X	X	X		
705 - Riprap	2003						
705 02 Riprap Rock	8/5/2009						
718 - Traffic Signing and Marking Material	2003	X	X	X	X	X	X
718 05 Aluminum Panels	8/5/2009	X	X	X	X	X	X

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ROAD NUMBER

SECTION NO & TITLE	REV DATE	3000 294-V	3000 295	3000 605	3000 500-I		3000 510
101 - Terms, Format, and Definitions	2003	X	X	X	X		X
101 01 Meaning of Terms	1/22/2009	X	X	X	X		X
101 01 Meaning of Terms	1/22/2009	X	X	X	X		X
101 03 Abbreviations and Symbols	6/16/2006	X	X	X	X		X
101 04 Symbols	3/29/2007	X	X	X	X		X
101 04 Definitions	11/6/2007	X	X	X	X		X
102 - Bid, Award, and Execution of Contract	2003	X	X	X	X		X
102 00 Delete 102 in its entirety	2/16/2005	X	X	X	X		X
103 - Scope of Work	2003	X	X	X	X		X
103 00 Intent of Contract	2/16/2005	X	X	X	X		X
104 - Control of Work	2003	X	X	X	X		X
104 00 Deletions to 104	6/16/2006	X	X	X	X		X
104 03 Specifications and Drawings.	1/22/2009	X	X	X	X		X
104 03 Specifications and Drawings	2/22/2005	X	X	X	X		X
104 06 Use of Roads by Contractor	2/17/2005	X	X	X	X		X
105 - Control of Material	2003	X	X	X	X		X
105 02 Material Sources	1/18/2007	X	X	X	X		X
105 05 Use of Material Found in the Work	5/12/2004	X	X	X	X		X
106 - Acceptance of Work	2003	X	X	X	X		X
Conformity with Contract							
106 01 Requirements	7/31/2007	X	X	X	X		X
106 07 Partial and Final Acceptance	5/11/2004	X	X	X	X		X
107 - Legal Relations and Responsibility to the Public	2003	X	X	X	X		X
107 05 Responsibility for Damage Claims	5/11/2004	X	X	X	X		X
107 06 Contractor Responsibility for Work	6/16/2006	X	X	X	X		X
107 08 Sanitation, Health & Safety	3/29/2005	X	X	X	X		X
107 09 Legal Relationship of the Parties	6/16/2006	X	X	X	X		X
108 - Prosecution and Progress	2003	X	X	X	X		X
107 10 Environmental Protection	6/16/2006	X	X	X	X		X
109 - Measurement and Payment	2003	X	X	X	X		X
109 00 Deletions	2/17/2005	X	X	X	X		X
Measurement Terms and							
109 02 Definitions	6/16/2006	X	X	X	X		X
151 - Mobilization	2003			X	X		X
155 - Schedule for Construction Contracts	2003	X	X	X	X		X
Contractor Quality Control Plan,							
155 00 Records	5/11/2004	X	X	X	X		X
201 - Clearing and Grubbing	2003	X	X	X			
201 00 Deletions	8/5/2009	X	X	X			
201 01 Description	2/18/2005	X	X	X			
201 04 Clearing	2/22/2005	X	X	X			
201 06 Disposal	2/18/2005	X	X	X			
201 06 Disposal	11/4/2004	X	X	X			
201 06 Disposal	11/9/2005	X	X	X			
203 - Removal of Structures and Obstructions	2003						
203 01 Description	2/25/2005						
203 04 Removing Material	2/18/2005						

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SECTION NO & TITLE	REV DATE	3000 294-V	3000 295	3000 605	3000 500-I		3000 510
203 08 Payment	2/24/2005						
204 - Excavation and Embankment	2003						
204 05 Conservation of Topsoil	2/18/2005						
204 06 Roadway Excavation	3/2/2005						
204 06 Roadway Excavation	3/2/2005						
Preparing Foundation for							
204 09 Embankment Construction	3/2/2005						
204 10 Embankment Construction	3/2/2005						
204 11 Compaction	4/11/2005						
204 13 Sloping, Shaping, and Finishing	3/2/2005						
204 13 Sloping, Shaping, and Finishing	3/2/2005						
Disposal of Unsuitable or Excess							
204 14 Material	3/2/2005						
204 15 Acceptance	2/7/2007						
212 - Linear Grading	2003			X			
Complete Specification							
212 00 (composite road construction)	5/19/2005			X			
251 - Riprap	2003		X				
301 - Untreated Aggregate Courses	2003				X		X
301 00 Title Change	3/3/2005				X		X
301 01 Work	3/3/2005				X		X
301 02 Material	5/16/2005				X		X
301 03 General	9/14/2005				X		X
301 04 Mixing and Spreading	3/3/2005				X		X
301 05 Compacting	5/17/2005				X		X
301 06 Surface Tolerance	3/3/2005				X		X
301 08 Acceptance	2/7/2007				X		X
301 08 Acceptance	3/3/2005				X		X
301 08 Acceptance	3/30/2005				X		X
301 10 Payment	3/3/2005				X		X
303 - Road Reconditioning	2003	X	X				
303 01 Description	3/2/2005	X	X				
Aggregate & Asphalt Surface							
303 06 Reconditioning	8/5/2008	X	X				
303 07 Roadway Reconditioning	3/2/2005	X	X				
625 - Turf Establishment	2003			X			
625 03 General	2/25/2005			X			
625 03 General	7/2/2007			X			
625 04 Preparing Seedbed	2/25/2005			X			
625 07 Seeding	2/25/2005			X			
703 - Aggregate	2003				X		
Subbase, Base, & Surface Course							
703 05 Aggregate	8/14/2009				X		
703 07 FLH FP-03 Correction metric uscu	3/2/2005				X		
Flakiness Index and Adherent							
703 10 Coatings	4/11/2011				X		
703 10 FLH FP-03 Correction	3/2/2005				X		
705 - Riprap	2003		X				
705 02 Riprap Rock	8/5/2009		X				
718 - Traffic Signing and Marking Material	2003	X	X	X	X		X
718 05 Aluminum Panels	8/5/2009	X	X	X	X		X

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BRSBA

ROAD NUMBER

SECTION NO & TITLE	REV DATE	3000 520	3000 530	3000 650			
101 - Terms, Format, and Definitions	2003	X	X	X			
101 01 Meaning of Terms	1/22/2009	X	X	X			
101 01 Meaning of Terms	1/22/2009	X	X	X			
101 03 Abbreviations and Symbols	6/16/2006	X	X	X			
101 04 Symbols	3/29/2007	X	X	X			
101 04 Definitions	11/6/2007	X	X	X			
102 - Bid, Award, and Execution of Contract	2003	X	X	X			
102 00 Delete 102 in its entirety	2/16/2005	X	X	X			
103 - Scope of Work	2003	X	X	X			
103 00 Intent of Contract	2/16/2005	X	X	X			
104 - Control of Work	2003	X	X	X			
104 00 Deletions to 104	6/16/2006	X	X	X			
104 03 Specifications and Drawings.	1/22/2009	X	X	X			
104 03 Specifications and Drawings	2/22/2005	X	X	X			
104 06 Use of Roads by Contractor	2/17/2005	X	X	X			
105 - Control of Material	2003	X	X	X			
105 02 Material Sources	1/18/2007	X	X	X			
105 05 Use of Material Found in the Work	5/12/2004	X	X	X			
106 - Acceptance of Work	2003	X	X	X			
Conformity with Contract							
106 01 Requirements	7/31/2007	X	X	X			
106 07 Partial and Final Acceptance	5/11/2004	X	X	X			
107 - Legal Relations and Responsibility to the Public	2003	X	X	X			
107 05 Responsibility for Damage Claims	5/11/2004	X	X	X			
107 06 Contractor Responsibility for Work	6/16/2006	X	X	X			
107 08 Sanitation, Health & Safety	3/29/2005	X	X	X			
107 09 Legal Relationship of the Parties	6/16/2006	X	X	X			
108 - Prosecution and Progress	2003	X	X	X			
107 10 Environmental Protection	6/16/2006	X	X	X			
109 - Measurement and Payment	2003	X	X	X			
109 00 Deletions	2/17/2005	X	X	X			
Measurement Terms and							
109 02 Definitions	6/16/2006	X	X	X			
151 - Mobilization	2003	X	X	X			
155 - Schedule for Construction Contracts	2003	X	X	X			
Contractor Quality Control Plan,							
155 00 Records	5/11/2004	X	X	X			
201 - Clearing and Grubbing	2003		X				
201 00 Deletions	8/5/2009		X				
201 01 Description	2/18/2005		X				
201 04 Clearing	2/22/2005		X				
201 06 Disposal	2/18/2005		X				
201 06 Disposal	11/4/2004		X				
201 06 Disposal	11/9/2005		X				
203 - Removal of Structures and Obstructions	2003		X				
203 01 Description	2/25/2005		X				
203 04 Removing Material	2/18/2005		X				

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BRSBA

ROAD NUMBER

SECTION NO & TITLE	REV DATE	3000 520	3000 530	3000 650			
203 08 Payment	2/24/2005		X				
204 - Excavation and Embankment	2003		X	X			
204 05 Conservation of Topsoil	2/18/2005		X	X			
204 06 Roadway Excavation	3/2/2005		X	X			
204 06 Roadway Excavation	3/2/2005		X	X			
204 09 Preparing Foundation for Embankment Construction	3/2/2005		X	X			
204 10 Embankment Construction	3/2/2005		X	X			
204 11 Compaction	4/11/2005		X	X			
204 13 Sloping, Shaping, and Finishing	3/2/2005		X	X			
204 13 Sloping, Shaping, and Finishing	3/2/2005		X	X			
204 14 Disposal of Unsuitable or Excess Material	3/2/2005		X	X			
204 15 Acceptance	2/7/2007		X	X			
212 - Linear Grading	2003						
212 00 Complete Specification (composite road construction)	5/19/2005						
251 - Riprap	2003			X			
301 - Untreated Aggregate Courses	2003	X	X				
301 00 Title Change	3/3/2005	X	X				
301 01 Work	3/3/2005	X	X				
301 02 Material	5/16/2005	X	X				
301 03 General	9/14/2005	X	X				
301 04 Mixing and Spreading	3/3/2005	X	X				
301 05 Compacting	5/17/2005	X	X				
301 06 Surface Tolerance	3/3/2005	X	X				
301 08 Acceptance	2/7/2007	X	X				
301 08 Acceptance	3/3/2005	X	X				
301 08 Acceptance	3/30/2005	X	X				
301 10 Payment	3/3/2005	X	X				
303 - Road Reconditioning	2003		X				
303 01 Description	3/2/2005		X				
303 06 Aggregate & Asphalt Surface Reconditioning	8/5/2008		X				
303 07 Roadway Reconditioning	3/2/2005		X				
625 - Turf Establishment	2003						
625 03 General	2/25/2005						
625 03 General	7/2/2007						
625 04 Preparing Seedbed	2/25/2005						
625 07 Seeding	2/25/2005						
703 - Aggregate	2003	X					
703 05 Subbase, Base, & Surface Course Aggregate	8/14/2009	X					
703 07 FLH FP-03 Correction metric uscu	3/2/2005	X					
703 10 Flakiness Index and Adherent Coatings	4/11/2011	X					
703 10 FLH FP-03 Correction	3/2/2005	X					
705 - Riprap	2003		X	X			
705 02 Riprap Rock	8/5/2009		X	X			
718 - Traffic Signing and Marking Material	2003	X	X	X			
718 05 Aluminum Panels	8/5/2009	X	X	X			

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Preface

Preface_wo_03_15_2004_m

Delete all but the first paragraph and add the following:

The Forest Service, US Department of Agriculture has adopted FP-03 for construction of National Forest System Roads.

101 - Terms, Format, and Definitions

101.00_nat_us_07_25_2005

101.01_nat_us_01_22_2009

101.01 Meaning of Terms

Delete all references to the TAR (Transportation Acquisition Regulations) in the specifications.

101.01_nat_us_01_22_2009

101.01 Meaning of Terms

Delete all references to the FAR (Federal Acquisition Regulations) in the specifications.

101.03_nat_us_06_16_2006

101.03 Abbreviations.

Add the following to (a) Acronyms:

AFPA	American Forest and Paper Association
MSHA	Mine Safety and Health Administration
NIST	<u>National Institute of Standards and Technology</u>
NESC	National Electrical Safety Code
WCLIB	West Coast Lumber Inspection Bureau

•

Add the following to (b) SI symbols:

mp	Milepost
ppm	Part Per Million

101.04_nat_us_03_29_2007

101.04 Definitions.

Delete the following definitions and substitute the following:

Bid Schedule--The Schedule of Items.

Bridge--No definition.

Contractor--The individual or legal entity contracting with the Government for performance of prescribed work. In a timber sale contract, the contractor is the “purchaser”.

Culvert--No definition.

Right-of-Way--A general term denoting (1) the privilege to pass over land in some particular line (including easement, lease, permit, or license to occupy, use, or traverse public or private lands), or (2) Real property necessary for the project, including roadway, buffer areas, access, and drainage areas.

Add the following:

Adjustment in Contract Price--“Equitable adjustment,” as used in the Federal Acquisition Regulations, or “construction cost adjustment,” as used in the Timber Sale Contract, as applicable.

Change--“Change” means “change order” as used in the Federal Acquisition Regulations, or “design change” as used in the Timber Sale Contract.

Design Quantity--“Design quantity” is a Forest Service method of measurement from the FS-96 *Forest Service Specifications for the Construction of Roads and Bridges*. Under these FP specifications this term is replaced by the term “Contract Quantities”.

Forest Service--The United States of America, acting through the Forest Service, U.S. Department of Agriculture.

Neat Line--A line defining the proposed or specified limits of an excavation or structure.

Pioneer Road--Temporary construction access built along the route of the project.

Purchaser--The individual, partnership, joint venture, or corporation contracting with the Government under the terms of a Timber Sale Contract and acting independently or through agents, employees, or subcontractors.

Protected Streamcourse--A drainage shown on the plans or timber sale area map that requires designated mitigation measures.

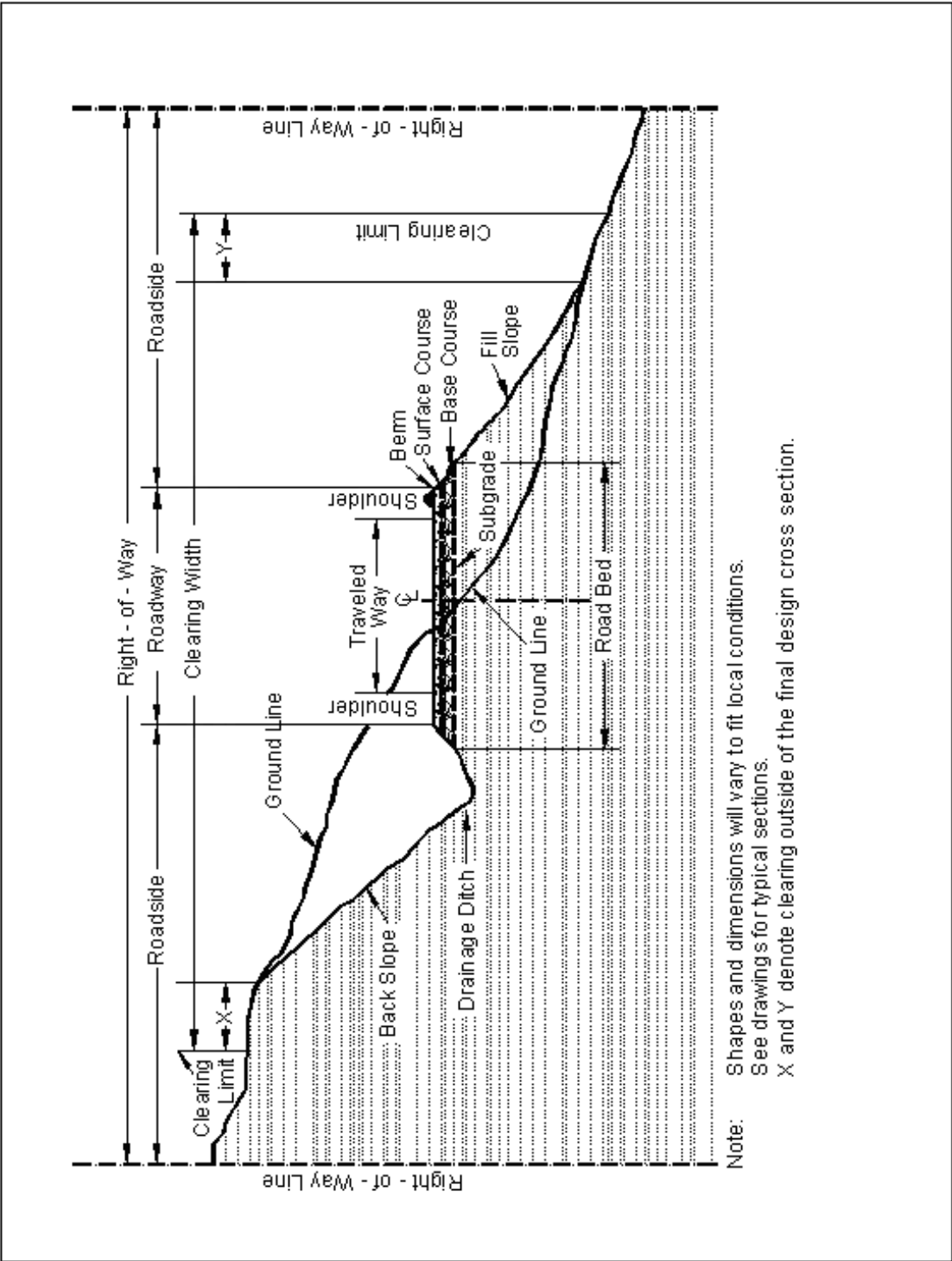
Road Order--An order affecting and controlling traffic on roads under Forest Service jurisdiction. Road Orders are issued by a designated Forest Officer under the authorities of 36 CFR, part 260.

Schedule of Items--A schedule in the contract that contains a listing and description of construction items, quantities, units of measure, unit price, and amount.

Utilization Standards--The minimum size and percent soundness of trees described in the specifications to determine merchantable timber.

Add Figure 101-1—Illustration of road structure terms:

Figure 101-1—Illustration of road structure terms.



101.04 Definitions.

Delete the following definitions:

Contract Modification

Day

Notice to Proceed

Solicitation

102 - Bid, Award, and Execution of Contract

102.00_nat_us_02_16_2005

102 Bid, Award, and Execution of Contract

Delete Section 102 in its entirety.

103 - Scope of Work

103.00_nat_us_02_16_2005

Deletions

Delete all but subsection 103.01 Intent of Contract.

104 - Control of Work

104.00_nat_us_06_16_2006

Deletions

Delete Sections 104.01, 104.02, and 104.04.

104.03_nat_us_02_22_2005

104.03 Drawings and Specifications

Delete subsection 104.03

104.03_nat_us_01_22_2009

104.03 Specifications and Drawings.

Delete 104.03.

104.06_nat_us_02_17_2005

Add the following subsection:

104.06 Use of Roads by Contractor

The Contractor is authorized to use roads under the jurisdiction of the Forest Service for all activities necessary to complete this contract, subject to the limitations and authorizations designated in the Road Order(s) or described in the contract, when such use will not damage the roads or national forest resources, and when traffic can be accommodated safely.

105 - Control of Material

105.02_nat_us_01_18_2007

105.02 Material Sources.

105.02(a) Government-provided sources.

Add the following:

Comply with the requirements of 30 CFR 56, subparts B and H. Use all suitable material for aggregate regardless of size unless otherwise designated. When required, re-establish vegetation in disturbed areas according to section 625.

105.05_nat_us_05_12_2004

105.05 Use of Material Found in the Work.

Delete 105.05 (a) and (b) and the last sentence of the second paragraph and substitute the following:

Materials produced or processed from Government lands in excess of the quantities required for performance of this contract are the property of the Government. The Government is not obligated to make reimbursement for the cost of producing these materials.

106 - Acceptance of Work

106.01_nat_us_07_31_2007

106.01 Conformity with Contract Requirements.

Delete Subsection 106.01 and substitute the following:

References to standard test methods of AASHTO, ASTM, GSA, and other recognized standard authorities refer to the methods in effect on the date of solicitation for bids.

Perform all work to the lines, grades, cross-sections, dimensions, and processes or material requirements shown on the plans or specified in the contract.

Incorporate manufactured materials into the work according to the manufacturer's recommendations or to these specifications, whichever is more strict.

Plan dimensions and contract specification values are the values to be strived for and complied with as the design values from which any deviations are allowed. Perform work and provide material that is uniform in character and reasonably close to the prescribed value or within the specified tolerance range. The purpose of a tolerance range is to accommodate occasional minor variations from the median zone that are unavoidable for practical reasons.

When standard manufactured items are specified (such as fence, wire, plates, rolled shapes, pipe conduits, etc., that are identified by gauge, unit mass, section dimensions, etc.), the identification will be considered to be nominal masses or dimensions. Unless specific contract tolerances are noted, established manufacturing tolerances will be accepted.

The Government may inspect, sample, or test all work at any time before final acceptance of the project. When the Government tests work, copies of test reports are furnished to the Contractor upon request. Government tests may or may not be performed at the work site. If Contractor testing and inspection is verified by the Government, the Contractor's results may be used by the Government to evaluate work for acceptance. Do not rely on the availability of Government test results for process control.

Acceptable work conforming to the contract will be paid for at the contract unit bid price. Four methods of determining conformity and accepting work are described in Subsections 106.02 to 106.05 inclusive. The primary method of acceptance is specified in each Section of work. However, work may be rejected at any time it is found by any of the methods not to comply with the contract.

Remove and replace work that does not conform to the contract, or to prevailing industry standards where no specific contract requirements are noted, at no cost to the Government.

(a) Disputing Government test results. **If the accuracy of Government test results is disputed, promptly inform the CO. If the dispute is unresolved after reasonable steps are taken to resolve the dispute, further evaluation may be obtained by written request. Include a narrative describing the dispute and a proposed resolution protocol that addresses the following:**

- (1) Sampling method;
- (2) Number of samples;
- (3) Sample transport;
- (4) Test procedures;
- (5) Testing laboratories;
- (6) Reporting;
- (7) Estimated time and costs; and
- (8) Validation process.

If the evaluation requires additional sampling or testing be performed, mutually agree with the Government on witnessing procedures and on sampling and testing by a third party laboratory. Use a third party laboratory accredited by the AASHTO accreditation program. Provide proof of the laboratory's accreditation for the test procedures to be used. Do not use the same laboratory that produced the disputed Government test results or that produced the test results used as a basis for the dispute.

The CO will review the proposed resolution protocol and may modify it before final approval and execution.

The Government will use the approved resolution protocol test results to determine the validity of the disputed testing. If the Government test results are validated, the Contractor will be responsible for all costs associated with developing and performing the resolution protocol. If the Government test results are not validated, the Government will be responsible for all costs associated with developing and performing the resolution protocol. If the validity of the Government test results cannot be determined, the Contractor and Government will equally share all costs associated with developing and carrying out the resolution protocol.

(b) Alternatives to removing and replacing non-conforming work. As an alternative to removal and replacement, the Contractor may submit a written request to:

- (1) Have the work accepted at a reduced price; or
- (2) Be given permission to perform corrective measures to bring the work into conformity.

The request must contain supporting rationale and documentation. Include references or data justifying the proposal based on an evaluation of test results, effect on service life, value of material or work, quality, aesthetics, and other tangible engineering basis. The CO will determine disposition of the nonconforming work.

106.07_nat_us_05_11_2004

106.07 Delete

Delete subsection 106.07.

107 - Legal Relations and Responsibility to the Public

107.05_nat_us_05_11_2004

107.05 Responsibility for Damage Claims.

Delete the entire subsection.

107.06_nat_us_06_16_2006

107.06 Contractor's Responsibility for Work.

Delete the following from the first paragraph.

“except as provided in Subsection 106.07”.

107.08_nat_us_03_29_2005

107.08 Sanitation, Health, and Safety

Delete the entire subsection.

107.09_nat_us_06_16_2006

107.09 Legal Relationship of the Parties.

Delete the entire subsection.

107.10_nat_us_06_16_2006

107.10 Environmental Protection.

Add the following:

Design and locate equipment repair shops, stationary refueling sites, or other facilities to minimize the potential and impacts of hazardous material spills on Government land.

Before beginning any work, submit a Hazardous Spill Plan. List actions to be taken in the event of a spill. Incorporate preventive measures to be taken, such as the location of mobile refueling facilities, storage and handling of hazardous materials, and similar information. Immediately notify the CO of all hazardous material spills. Provide a written narrative report form no later than 24 hours after the initial report and include the following:

- Description of the item spilled (including identity, quantity, manifest number, and other identifying information).
- Whether amount spilled is EPA or state reportable, and if so whether it was reported, and to whom.

- Exact time and location of spill including a description of the area involved.
- Containment procedures.
- Summary of any communications the Contractor had with news media, Federal, state and local regulatory agencies and officials, or Forest Service officials.
- Description of clean-up procedures employed or to be employed at the site including final disposition and disposal location of spill residue.

When available provide copies of all spill related clean up and closure documentation and correspondence from regulatory agencies.

The Contractor is solely responsible for all spills or leaks that occur during the performance of this contract. Clean up spills or leaks to the satisfaction of the CO and in a manner that complies with Federal, state, and local laws and regulations.

108 - Prosecution and Progress

108.00_nat_us_02_16_2005

108 Delete.

Delete Section 108 in its entirety.

109 - Measurement and Payment

109.00_nat_us_02_17_2005

109 Deletions

Delete the following entire subsections:

109.06 Pricing of Adjustments.

109.07 Eliminated Work.

109.08 Progress Payments.

109.09 Final Payment.

109.02_nat_us_06_16_2006

109.02 Measurement Terms and Definitions.

(b) Contract quantity.

Add the following:

Contract quantities will be adjusted only when there are errors in the original design of 15% or more.

Change the following:

“(b) Cubic yard” to “(c) Cubic yard”.

Add the following definition:

(p) Thousand Board Feet (Mbf). 1,000 board feet based on nominal widths, thickness, and extreme usable length of each piece of lumber or timber actually incorporated in the job. For glued laminated timber, 1,000 board feet based on actual width, thickness, and length of each piece actually incorporated in the job.

155 - Schedules for Construction Contracts

155.00_nat_us_05_11_2004

155 Delete.

Delete Section 155 in its entirety.

201 - Clearing and Grubbing

201.00_nat_us_08_05_2009

201.02 Material:

Delete Tree wound dressing material reference.

201.03 General.

Delete the last sentence.

201.04 Clearing.

Delete the last sentence of (d).

201.01_nat_us_02_18_2005

201.01 Description

Replace with the following

This work consists of clearing and grubbing within clearing limits and other designated areas.

201.04_nat_us_02_22_2005

201.04 Clearing. (c)

Delete paragraph (c) and replace with the following:

(c) In areas outside the excavation, embankment, and slope rounding limits, cut stumps to within 12 inches or one-third of the stump diameter of the ground, whichever is higher, measured on the side adjacent to the highest ground. For timber sales, stump heights will meet the requirements of the Timber Sale contract.

201.04 Clearing.

Delete subsection (d) and replace with the following:

(d) Do not cut vegetation less than 3 feet tall and less than 3 inches in diameter, that is within the clearing limits but beyond the roadway and not in a decking area, and that does not interfere with sight distance along the road.

Add the following:

(e) Trim branches of remaining trees or shrubs to give a clear height of 14 feet above the roadbed unless otherwise indicated. Trim tree limbs as near flush with the trunk as practicable.

(f) Remove brush from log decks. Deck logs so that logs are piled parallel to one another; can be removed by standard log loading equipment; will not damage standing trees; will not interfere with drainage, and will not roll. Keep logs in log decks free of brush and soil.

201.06_nat_us_11_04_2004

201.06 Disposal.

Delete the first sentence of this subsection and substitute the following:

Merchantable timber removed from Forest Service land is subject to the Forest Resources Conservation and Shortage Relief Act of 1990 (PL 101-382; 104 Stat. 714-726; 16 USC 620 et. seq.). Do not export timber from the United States or use in direct or indirect substitution for unprocessed timber exported from the United States, from private lands by Purchaser, or any person as defined in Section 493 (16 USC 620e) of the Act.

Unless Forest Service determines that circumstances warrant a written waiver or adjustment, (1) hammer brand all products on both ends with an assigned contract brand before removal from the project site, (2) hammer brand each product exempt from domestic processing on both ends with an exempt brand registered for use on exempt logs from National Forest, and (3) paint all domestic processing products on both ends with 2 inch circle of yellow paint according to Interim Specification 2400-400 (available upon request). Paint or brand products before removing them from project site unless approved by the CO. Brands and yellow paint must remain on logs until they are processed.

Contractor may remanufacture logs into different log lengths as approved. Repaint or rebrand all remanufactured pieces. Pay all surveillance costs except that Forest Service may waive such payment if such costs are minor and part of normal remanufacturing operations.

201.06_nat_us_11_09_2005

201.06 Disposal

Delete the first sentence of this paragraph and substitute the following:

Limb and deck logs that meet utilization standards at locations approved by the CO or otherwise designated. Deck logs according to 201.04 (f).

201.06_nat_us_02_18_2005

201.06 Disposal.

Delete the first sentence of this subsection and substitute the following:

Dispose of merchantable timber designated for removal according to the provisions of the timber sale contract.

203 - Removal of Structures and Obstructions

203.01_nat_us_02_25_2005

203.01 Description.

Delete and replace with the following:

This work consists of disposing of construction slash and debris, salvaging, removing, and disposing of buildings, fences, structures, pavements, culverts, utilities, curbs, sidewalks, and other obstructions.

203.04_nat_us_02_18_2005

203.04 Removing Material.

Replace the fourth and fifth paragraphs with the following:

Where part of an existing culvert is removed, remove the entire culvert upstream from the removal. The remaining downstream culvert may be left in place if no portion of the culvert is within 12 inches of the subgrade, embankment slope, or new culvert or structure; and the culvert ends are sealed with concrete.

Remove structures and obstructions in the roadbed to 12 inches below subgrade elevation.

Remove structures and obstructions outside the roadbed to 12 inches below finished ground or to the natural stream bottom.

203.08_nat_us_02_24_2005

203.08 Payment

Add the following:

Disposal of construction slash will be compensated under the designated pay item in Section 201.

204 - Excavation and Embankment

204.05_nat_us_02_18_2005

204.05 Conserved Topsoil

Delete the entire paragraph.

204.06_nat_us_03_02_2005

204.06 Roadway Excavation.

Add the following:

d) Pioneer Roads. Road pioneering, slash disposal, and grubbing of stumps may proceed concurrently with excavation. Conduct excavation and placement operations so material to be treated under Section 201 will not be incorporated into the roadway unless specified in the slash treatment method. Maintain drainage during pioneering operations.

Remove snow and ice in advance of the work and deposit beyond the roadway limits in a manner that will not waste material or generate sediment. Do not incorporate snow and ice into embankments. Place snow or ice in a manner to prevent resource damage.

204.06_nat_us_03_02_2005

204.06 Roadway Excavation

(a) General.

Add the following:

Retrieve material deposited outside of the clearing limits as directed by the CO. Place unsuitable material in designated areas.

204.09_nat_us_03_02_2005

204.09 Preparing Foundation for Embankment Construction.

Delete subsection (a) and replace it with the following:

(a) Embankment less than 4 feet high over natural ground. When designated, remove topsoil and break up the ground surface to a minimum depth of 6 inches by plowing or scarifying. Compact the ground surface according to Subsection 204.11.

204.10_nat_us_03_02_2005

204.10 Embankment Construction.

Add the following:

Obtain written approval before beginning construction of embankments over 6 feet high at subgrade centerline.

(a) General.

Delete the third paragraph and add the following:

Compact embankment side slopes flatter than 1V:1.75H with a tamping type roller or by walking with a dozer. For slopes 1V:1.75H or steeper, compact the slopes as construction of the embankment progresses.

204.11_nat_us_04_11_2005

204.11 Compaction.

Delete the first paragraph and replace it with the following:

For compaction according to method (a), (b), or (c), use AASHTO T 27 to determine the amount of material retained on a Number. 4 sieve. For compaction methods (d) or (e) no sieve test is required.

Add the following compaction methods:

(d) Layer Placement Method (Hauling and Spreading Equipment). Place material by end dumping to the minimum depth needed for operation of spreading equipment. Level and smooth each embankment layer before placing the next layers. Operate hauling and spreading equipment uniformly over the full width of each layer. Construct a solid embankment with adequate compaction by working smaller rock and fines in with the larger rocks to fill the voids, and by operating hauling and spreading equipment uniformly over the full width of each layer as the embankment is constructed.

(e) Layer Placement (Roller Compaction) Method. Place material by end dumping to the minimum depth needed for operation of spreading equipment. Adjust the moisture content of the material to obtain a mass that will not visibly deflect under the load of the hauling and spreading equipment. Operate compaction equipment over the full width of each layer until visible deformation of the layer ceases or, in when a sheepsfoot roller is used, the roller “walks out” of the layer. Make at least three complete passes.

204.13_nat_us_03_02_2005

204.13 Sloping, Shaping, and Finishing.

(a) Sloping.

Add the following:

Slope rounding is not required on tolerance class D through M roads.

204.13_nat_us_03_02_2005

204.13 Sloping, Shaping, and Finishing.

Delete section (d) and add the following:

(d) Finishing. For surfaced roads, remove all material larger than 6 inches from the top 6 inches of the roadbed. For all roads, finish the roadbed to be smooth and uniform, and shaped to conform to the typical sections. Remove unsuitable material from the roadbed and replace it with suitable material. Finish roadbeds to the tolerance class shown in table 204-2.

Ensure that the subgrade for both surfaced and unsurfaced roads is visibly moist during shaping and dressing. Scarify to 6 inches below the bottom of low sections, holes, cracks, or depressions and bring back to grade with suitable material. Maintain proper ditch drainage.

For unsurfaced roads, use one of the following methods to finish the roadbed:

- (1) Method A. Remove all material larger than 6 inches from the top 6 inches of the roadbed and replace with suitable material.
- (2) Method B. Use a vibratory grid roller or approved equal with a minimum weight of 10 tons. Roll at least 5 full-width passes or until visible displacement ceases.
- (3) Method C. For roads designated as Construction Tolerance Class K, L, or M, finish the roadbed by spreading the excavation. Eliminate rock berms.

Add Table 204-2—Construction Tolerances:

Table 204-2 Construction tolerances.

	Tolerance Class ^(a)												
	A	B	C	D	E	F	G	H	I	J	K	L	M
Roadbed width (ft)	+0.5	+0.5	+1.0	+1.0	+1.0	+1.0	+1.5	+1.0	+2.0	+2.0	+2.0	+2.0	+2.0
Subgrade elevation (ft)	±0.1	±0.2	±0.2	±0.5	+0.5	±1.0	±1.0	±1.5	±2.0	±3.0	±2.0	±3.0	(c)
Centerline alignment (ft)	±0.2	±0.2	±0.5	±0.5	±1.0	±1.0	±1.5	±1.5	±2.0	±3.0	±3.0	±5.0	(c)
Slopes, excavation, and embankment (% slope ^(b))	±3	±5	±5	±5	±5	±5	±10	±10	±10	±10	±20	±20	±20

a. Maximum allowable deviation from construction stakes and drawings.

b. Maximum allowable deviation from staked slope measured from slope stakes or hinge points.

c. Unless otherwise shown the centerline alignment and subgrade elevation, as built, have no horizontal curves with a radius of less than 80 feet, and no vertical curves with a curve length of less than 80 feet when the algebraic difference in the grade change is less than 10 percent, or a curve length of less than 100 feet when the algebraic difference of the grade change is greater than or equal to 10 percent. The centerline grade is not to exceed 20 percent in 100 feet of length.

204.14_nat_us_03_02_2005

204.14 Disposal of Unsuitable or Excess Material.

Delete the text of the first paragraph and substitute the following:

Dispose of unsuitable or excess material at designated sites or legally off of the project.

204.15_nat_us_02_07_2007

204.15 Acceptance

Table 204-1 Sampling and Testing Requirements.

Add the following note to the table:

(2) When compaction methods (d) or (e) are used AASHTO M 145, T 99, T 180, and T 310 are not required for earth embankment test methods.

212 - Linear Grading

212.00_nat_us_05_19_2005

Delete the entire specification and replace it with the following:

Description

212.01 This work consists of clearing and grubbing, excavation and embankment, and erosion control to construct roadways and associated features.

Construction Requirements

212.02 Clearing & Disposal. Protect construction stakes and construction control markers. Remove or treat all trees, snags, downed timber, brush, and stumps within the clearing limits.

Immediately remove slash deposited in stream courses.

Fell all dead trees that are outside the clearing limits and that lean toward the road and are tall enough to reach the roadbed.

Leave stump heights less than 12 inches or one-third of the stump diameter; whichever is greater, measured on the side adjacent to the highest ground. Leave felled trees outside the clearing limits in place, and treat them no further unless otherwise designated.

Do not cut vegetation less than 3 feet in height and less than 3 inches in diameter that is within the clearing limits but beyond the roadway and not in a decking area and that does not interfere with sight distance along the road.

212.03 Pioneering. Do not undercut the final back slope during pioneering operations. Deposit material inside the roadbed limits. Do not restrict drainage.

212.04 Grubbing. Within the clearing limits remove stumps with less than 6 inches of cover.

212.05 Excavation & Embankment. Construct the roadway to the required template. Protect backslopes from being undercut. Embankment may be placed by side casting and end dumping.

Locate and use borrow material, and remove and treat unsuitable or excess material.

Place rocks that are too large to be incorporated in the embankment outside the traveled way on the downhill side so that they will not roll, obstruct drainage, or hinder roadbed use and maintenance.

Leave slopes that are to be seeded in a roughened condition.

Use a crawler tractor with a dozer blade to shape and finish the roadbed. Provide for drainage of surface water, unless otherwise designated. Do not permit individual rocks in the roadbed to protrude more than 4 inches above the subgrade. A motor grader finish is not required.

Do not encroach on stream channels, wetlands, or extend beyond right-of-way or easement limits. Do not make alignment or profile grade adjustments that adversely affect drainage.

Construct the roadbed within the following grading tolerances:

(a) Alignment (centerline). Alignment may be shifted a maximum of 10 feet left or right of the planned centerline. Curve radii may be reduced by up to 50 percent. Do not construct curves with radii less than 100 feet. Compound curves are permitted. Traveled way tolerance is (+) 2 feet unless otherwise designated.

(b) Profile grade. Profile grade may be shifted a maximum of 5 feet up or down from the plan elevation provided the new grade tangent does not vary more than 2 percent from the plan grade tangent. Connect revised forward and back grade tangents with a uniform vertical curve consistent with the design.

212.06 Drainage. Install culverts and other drainage structures according to Section 602 and Section 209.

212.07 Erosion Control. Install erosion control measures and seeding according to the drawings and Section 625.

212.08 Acceptance. Linear grading will be evaluated under Subsections 106.02 and 106.04.

Clearing and slash and timber treatment will be evaluated under Sections 201 and 203.

Measurement

212.09 Measure the Section 212 items listed in the bid schedule according to Subsection 109.02 and the following.

Do not measure changes in the clearing and grubbing quantity caused by alignment adjustments under Subsection 212.04.

Payment

212.10 The accepted quantities, measured as provided in Subsection 109.02 and above, will be paid at the contract price per unit of measurement for the Section 212 pay item listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

301 - Untreated Aggregate Courses

301.00_nat_us_03_03_2005

301 Title Change.

Change the title to: **Section 301 Aggregate Courses**

301.01_nat_us_03_03_2005

301.01 Work.

Add the following:

Work includes producing aggregate by pit-run, grid rolling, screening, or crushing methods, or placing Government-furnished aggregate. Work may include additive mineral filler, or binder.

301.02_nat_us_05_16_2005

301.02 Material.

Add the following:

Bentonite	725.30
Calcium Chloride Flake	725.02
Lignon Sulfonate	725.20
Magnesium Chloride Brine or Calcium Chloride Liquid	725.02

301.03_nat_us_09_14_2005

301.03 General.

Add the following:

Written approval of the roadbed is required before placing aggregate.

For pit run or grid-rolled material, furnish material smaller than the maximum size. No gradation other than maximum size will be required for pit-run or grid-rolled material. For grid rolling, use all suitable material that can be reduced to maximum size. After processing on the road, remove all oversize material from the road and dispose of it as directed by the CO.

Provide additives or binder, if required, at the proportions specified.

Develop and use Government furnished sources according to Section 105.

If the aggregate is produced and stockpiled before placement, handle and stockpiled according to Section 320. Establish stockpile sites at locations approved. Clear and grub stockpile sites according to Section 201.

301.04 Mixing and Spreading.

Delete the first sentence of the first paragraph and add the following:

Ensure that aggregate and any required additives, water, mineral filler, and binder are mixed by the specified method except, if crushed aggregate products are being produced and mineral filler, binder, or additives are required, uniformly blend following crushing. Control additive proportions to 0.5 percent dry weight.

(a) Stationary Plant Method. Mix the aggregate with other required materials in an approved mixer. Add water during the mixing operation in the amount necessary to provide the moisture content for compacting to the specified density. After mixing, transport the aggregate to the jobsite while it contains the proper moisture content, and place it on the roadbed or base course using an aggregate spreader.

(b) Travel Plant Method. After placing the aggregate for each layer with an aggregate spreader or windrow-sizing device, uniformly mix it with other required materials using a traveling mixing plant. During mixing, add water to provide the necessary moisture content for compacting.

(c) Road Mix Method. After placing the aggregate for each layer, mix it with other required materials at the required moisture content until the mixture is uniform throughout. Mix aggregate, water, and all other materials until a uniform distribution is obtained.

Spread the aggregate in a uniform layer, with no segregation of size, and to a loose depth that will provide the required compacted thickness.

When placing aggregate over geotextile, place aggregate in a single lift to the full depth specified.

Route and distribute hauling and leveling equipment over the width and length of each layer.

301.05 Compacting

Delete and replace with the following:

Compact each layer full width. Roll from the sides to the center, parallel to the centerline of the road. Along curbs, headers, walls, and all places not accessible to the roller, compact the material with approved tampers or compactors.

Compact the aggregate using one of the following methods as specified:

Compaction A. Operating spreading and hauling equipment over the full width of the travelway.

Compaction B. Operate rollers and compact as specified in Subsection 204.11(a)(1).

Compaction C. Moisten or dry the aggregate to a uniform moisture content between 5 and 7 percent based on total dry weight of the mixture. Operate rollers and compact as specified in Subsection 204.11(a)(1).

Compaction D. Compact to a density of at least 95 percent of the maximum density, as determined by AASHTO T 99, method C or D.

Compaction E. Compact to a density of at least 96 percent of the maximum density, as determined by the Modified Marshall Hammer Compaction Method (available upon request from USDA Forest Service, Regional Materials Engineering Center, P.O. Box 7669, Missoula, MT 59807).

Compaction F. Compact to a density of at least 95 per-cent of the maximum density, as determined by AASHTO T 180, method C or D.

Compaction G. Compact to a density of at least 100 percent of the maximum density as determined by the Modified Marshall Hammer Compaction Method (available upon request from USDA Forest Service, Regional Materials Engineering Center, P.O. Box 7669, Missoula, MT 59807).

For all compaction methods, blade the surface of each layer during the compaction operations to remove irregularities and produce a smooth, even surface. When a density requirement is specified, determine the in place density and moisture content according to AASHTO T 310 or other approved test procedures.

301.06_nat_us_03_03_2005

301.06 Surface Tolerance.

Add the following:

Thickness and Width requirements:

The maximum variation from the compacted specified thickness is ½ inch. The compacted thickness is not consistently above or below the specified thickness and the average thickness of 4 random measurements for any ½ mile of road segment is within + ¼ inch of the specified thickness.

The maximum variation from the specified width will not exceed +12 inches at any point. The compacted width is not consistently above the specified width and the average of any four random measurements along any ½ mile of road segment is within +4 inches of the specified width.

301.08_nat_us_03_30_2005

301.08(b) Plasticity Index.

Add the following to the first sentence:

“and under 703.05(c)(1)”.

Table 301-1: Add the following:

Table 301-1—Acceptance Sampling and Testing Requirements.

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Subbase & Base Courses L, M, N, O, P, Q, R	Measured and tested conformance (Subsection 106.04)	Plastic Limit	-	AASHTO T 90	1 per each 1,000 T	From the windrow or roadbed after processing	Yes	4 Hours

Table 301-1—Acceptance Sampling and Testing Requirements.

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Aggregate Width	Measured and tested conformance (Subsection 106.04)	Width	-	-	4 per each 0.5 mi	Roadbed after processing	-	4 Hours
Aggregate Thickness	Measured and tested conformance (Subsection 106.04)	Thickness	-	-	4 per each 0.5 mi	Roadbed after processing	-	4 Hours
Additive	Measured and tested conformance (Subsection 106.04)	Amount of Additive	-		1 per each 1,000 T	From the windrow or roadbed after processing	No	4 Hours

Table 301-1 Field Density Requirements.

Table 301-1: Delete laboratory and field density requirements for base, subbase, and surfacing and replace with the following:

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Base and Subbase	Measured and tested conformance (Subsection 106.04)	Moisture Density	---					
		Method C	---	AASHTO T 99	1 per type and source of material	Source of material	Yes	Before using in work
			---		“	“	“	“
		Method D	---	AASHTO T 180	“	“	“	“
			---		“	“	“	“
		Compaction	---					
		Method C, D	---	AASHTO T 310 or other approved procedures	1 per 500 t	In-place	---	Before placing the next layer
Surfacing	Measured and tested conformance (Subsection 106.04)	Moisture Density						
			---		“	“	“	Before using in work
		Method D	---	AASHTO T 180	“	“	“	“
			---		“	“	“	“
		Compaction						
		Method C, D	---	AASHTO T 310 or other approved procedures	1 per 500 t	In-place	---	Before placing the next layer

301.10 Payment

Delete the following:

adjusted according to Subsection 106.05

303 - Road Reconditioning

303.01_nat_us_03_02_2005

303.01 Work.

Delete and add the following:

This work consists of reconditioning ditches, shoulders, roadbeds, cattleguards, asphalt surfaces, and aggregate surfaces.

303.06_nat_us_08_05_2008

303.06 Aggregate Surface Reconditioning.

Delete and replace with the following:

303.06 Asphalt and Aggregate Surface Reconditioning.

Repair soft and unstable areas to the full depth of the aggregate surface and according to Subsection 204.07. Scarify to the depth of the aggregate surface or to a depth of 6 inches, whichever is less, and remove surface irregularities. Reshape, finish, and compact the entire aggregate surface according to Subsection 301.05, Subsection 321.05, or Subsection 322.05 as applicable.

For asphalt surfaces, clean the existing surface of all loose material, dirt, or other deleterious substances by approved methods. Remove and dispose of unsuitable material that shows evidence of distress, excess asphalt material, or settlement in the roadbed. Patch the areas with approved material that conforms to and is compatible with the adjacent pavement structure. Perform the patch work according to Section 301, 404, 430, or other sections as applicable for the layer or courses being repaired. Clean and seal cracks in the existing asphalt surface according to Subsection 414.05. Correct surface irregularities exceeding 6 inches in depth with a specified aggregate. Place and compact the aggregate according to Subsections 301.04 and 301.05. Prelevel other dips, depressions, sags, excessive or nonexistent crown, or other surface irregularities with asphalt concrete according to Section 404. Spread and compact the asphalt concrete in layers parallel to the grade line not to exceed 2 inches in compacted depth.

Delete Table 303-1 and replace with the following:

**Table 303-1
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Existing Roadway	Measured and tested for conformance (106.04)	Moisture-density Method D	—	AASHTO T 99 ⁽¹⁾	1 per each mixture or change in material	Processed material before incorporating in work	Yes, when requested	Before using in work
		Moisture-density Method E	—	R-1 Marshall	“	“	“	“
		Moisture-density Method F	—	AASHTO T 180 ⁽¹⁾	“	“	“	“
		Moisture-density Method G	—	R-1 Marshall	“	“	“	“
		In-place density & moisture content	—	AASHTO T 310 or other approved procedures	1 per 3000 yd ²	In-place	—	Before placing next layer

(1) Minimum of 5 points per proctor.

303.07_nat_us_03_02_2005

303.07 Roadway Reconditioning.

Add the following:

Remove cattleguard decks. Clean the deck and the area beneath the cattleguard of soil and other material to the bottom of the original foundation over the entire width of the installation.
Reinstall the cattleguard deck.

625 - Turf Establishment

625.03_nat_us_07_02_2007

625.03 General.

Delete this subsection and replace with the following:

Apply turf establishment to prepared ground or any disturbed area between October 1 and June 1. Apply turf establishment to the finished slopes and ditches and areas shown on the plans or worklists within 15 days after completion of ground disturbing activities. Seeded areas damaged by construction activities shall be reseeded within 10 days of the damage. Do not seed during windy weather or when the ground is excessively wet, frozen, snow covered, extremely dry, cloddy, hard pan, or is otherwise untillable.

Assure that all seed and mulch used in the work conforms to the weed free requirements of Section 713.

625.04 Preparing Seedbed.

Delete entire subsection and replace with the following:

Ensure that the surface soil is in a roughened condition favorable for germination and growth.

625.05 Watering

Delete entire subsection.

625.06 Fertilizing.

Delete entire subsection and replace with the following:

Apply fertilizer having a chemical analysis as listed below by the following methods.

(a) Dry Method. Apply the fertilizer with approved mechanical equipment. Hand operated methods are satisfactory on areas inaccessible to mechanical equipment.

(b) Hydraulic method. Use hydraulic-type equipment capable of providing a uniform application using water as the carrying agent. Add fertilizer to the slurry and mix before adding seed. Add the tracer material when designated by the CO.

Fertilizer. Apply fertilizer at the rate of N/A pounds per acre. Insure that the fertilizer meets the following chemical analysis:

<u>Nutrient</u>	<u>Percent</u>
Nitrogen, N	<u>XXXXXX</u>
Phosphorus, P ₂ O ₅	<u>XXXXXX</u>
Potassium, K	<u>XXXXXX</u>

625.07 Seeding.

Delete the first sentence and add the following.

Apply seed mix by the following methods:

(a) Dry method. Delete the third sentence.

625.08 Mulching.

Delete the entire subsection and replace with the following:

Apply Mulch within N/A hours after seeding by the following methods.

(a) Dry Method. Apply mulch with a hand spreader or a spreader utilizing forced air at a rate of XXXX pounds per acre. Anchor the mulch with an approved stabilizing emulsion tackifier at a rate of XX gallons per acre. Do not mark or deface structure, pavements, utilities, or plant growth with tackifier.

(b) Hydraulic Method. Apply mulch in a separate application from the seed using hydraulic-type equipment according to Subsection 625.07(b).

Apply wood fiber or grass straw cellulose fiber mulch at a rate of XXXX pounds per acre.

Apply bonded fiber matrix hydraulic mulch at a minimum rate of XXXX pounds per acre. Apply so no hole in the matrix is greater than 0.04 inches. Apply so that no gaps exist between the matrix and the soil.

Inaccessible areas may be mulched by hand. Apply mulch uniformly over the entire disturbed area.

625.09 Protecting and Caring for Seeded Areas

Delete the first sentence and add the following:

Protect and care for seeded areas until final acceptance.

625.11 Measurement.

Delete the entire Subsection and replace with the following:

Measure the Section 625 items listed in the bid schedule according to Subsection 109.02.

625.04_nat_us_02_25_2005

625.04 Preparing Seedbed.

Delete “2 inches in diameter and larger,” from the second sentence.

625.07_nat_us_02_25_2005

625.07 Seeding. (a) Dry method.

Remove the last sentence “Lightly compact the seedbed within 24 hours after seeding.”

625.07 Seeding. (b) Hydraulic method.

Add the following:

Apply fertilizer conforming to Subsection 713.03 at the rates shown in Table 625-1. Fertilize areas inaccessible to hydro-type equipment by hand.

703 - Aggregate

703.05_nat_us_08_14_2009

Delete 703.05 and replace with the following:

703.05 Subbase, Base, Surface Course, and Screened Aggregate.

(a) Subbase or base aggregate. Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel conforming the following:

(1) Gradation	Table 703-2
(2) Liquid limit, AASHTO T 89	25 max.
(3) Plastic limit, AASHTO T 90	Nonplastic
(4) Los Angeles abrasion, AASHTO T 96	40% max.
(5) Sodium sulfate soundness loss (5 cycles), AASHTO T 104	12% max.
(6) Durability index (coarse), AASHTO T 210	35 min.
(7) Durability index (fine), AASHTO T 210	35 min.
(8) Fractured faces, ASTM D 5821	50% min.
(9) Free from organic matter and lumps or balls of clay	

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary. Fine aggregate, material passing the No. 4 sieve, shall consist of natural or crushed sand and fine mineral particles.

(b) Surface course aggregate. Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel conforming the following:

(1) Gradation	Table 703-3
(2) Liquid limit, AASHTO T 89	35 max.
(3) Plastic Index, AASHTO T 90	
a) If the percent passing the No. 200 sieve is less than 12%	2 to 9
b) If the percent passing the No. 200 sieve is greater than 12%	Less than 2
(4) Los Angeles abrasion, AASHTO T 96	40% max.
(5) Sodium sulfate soundness loss (5 cycles), AASHTO T 104	12% max.
(6) Durability index (coarse), AASHTO T 210	35 min.
(7) Durability index (fine), AASHTO T 210	35 min.
(8) Fractured faces, ASTM D 5821	75% min.
(9) Free from organic matter and lumps or balls of clay	

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Do not furnish material that contains asbestos fibers.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary. Fine aggregate, material passing the No. 4 sieve, shall consist of natural or crushed sand and fine mineral particles.

(c) **Screened aggregate** – Furnish hard, durable particles or fragments of stone, slag, or gravel conforming the following:

(1) Gradation	Table 703-16
(2) Plastic Index, AASHTO T 90	Less than 9
(3) Los Angeles abrasion, AASHTO T 96	55% max.
(4) Free from organic matter and lumps or balls of clay.	

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary.

Delete Table 703-2 and replace with the following:

Table 703-2 Target Value Ranges for Subbase and Base Gradation Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)						
Sieve Size	Grading Designation					
	A (Subbase)	B (Subbase)	C (Base)	D (Base)	E (Base)	
2½ inch	100					
2 inch	97 – 100	100	100			
1½ inch		97 – 100				
1 inch	65 – 79 (6)		80 – 100 (6)	100		
¾ inch			64 – 94 (6)	86 – 100 (6)	100	
½ inch	45 – 59 (7)					
⅜ inch			40 – 69 (6)	51 – 82 (6)	62 – 90 (6)	
No. 4	28 – 42 (6)	40 – 60 (8)	31 – 54 (6)	36 – 64 (6)	36 – 74 (6)	
No. 40	9 – 17 (4)			12 – 26 (4)	12 – 26 (4)	
No. 200	4.0 – 8.0 (3)	4.0 – 12.0 (4)	4.0 – 7.0 (3)	4.0 – 7.0 (3)	4.0 – 7.0 (3)	

() The value in the parentheses is the allowable deviation (±) from the target values..

Delete Table 703-3 and replace with the following:

**Table 703-3
Target Value Ranges for Surface Gradation**

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)					
	Grading Designation					
	F	G	H	S	T	U
1 1/2 inch	100			100		
1 inch	97-100	100		72 – 92 (6)	100	
3/4 inch	76-89 (6)	97 - 100	97 - 100			100
1/2 inch					71 – 91 (6)	
3/8 inch	56-68 (6)	70 – 80 (6)	80 – 92 (6)	51 – 71 (6)		71 – 90 (6)
No. 4	43-53 (7)	51 – 63 (7)	58 – 70 (7)	36 – 53 (7)	43 – 60 (7)	50 – 68 (7)
No. 8				26 – 40 (6)	30 – 46 (6)	34 – 51 (6)
No. 16	23-32 (6)	28 – 39 (6)	28 – 40 (6)			
No. 40	15-23 (5)	19 – 27 (5)	16 – 26 (5)	14 – 25 (5)	16 – 28 (5)	19 – 30 (5)
No. 200	10.0-16.0 (4)	10.0 – 16.0 (4)	9.0 – 14.0 (4)	8.0 – 15.0 (4)	8.0 – 15.0 (4)	8.0 – 15.0 (4)

() The value in the parentheses is the allowable deviation (\pm) from the target values.
If the plasticity index (PI) is greater than 0, the TV range for the No. 200 sieve size is 8-12 (4).

Add Table 703-16:**Table 703-16****Gradation Requirements for Screened Aggregate**

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)						
	Grading Designation						
	L	M	N	O	P	Q	R
6 inch	100	100					
4 inch			100	100			
3 inch					100	100	
2 inch							100
No. 4		15-45		15-45		15-45	

703.07_nat_us_03_02_2005

Table 703-2 Correction**Include the following substitution**

In Table 703-2, delete the “436 – 74 (6)” percent by mass passing for grading E (base) No. 4 sieve size and substitute “36 – 74 (6).”

Table 703-2 Correction

Include the following substitution

In Table 703-2, delete the “436 – 74 (6)” percent by mass passing for grading E (base) No. 4 sieve size and substitute “36 – 74 (6).”

703.10_nat_us_04_11_2011

703.10(e) Flakiness Index.

Delete and replace with the following:

Flakiness Index, FLH T 508 30% max.

703.10(i) Adherent Coating.

Add the following:

Adherent coating on the aggregate, FLH T 512 0.5% max.

703.10_nat_us_03_02_2005

Delete Table 703-7 and substitute the following:

Table 703-7 Target Value Ranges

Table 703-7
Target Value Ranges for
Single and Multiple Course Surface Treatment Aggregate Gradation

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 & T 11)					
	Grading Designation					
	A	B	C	D	E	F
1½ inch	100 ⁽¹⁾					
1 inch	90-100(3)	100 ⁽¹⁾				
¾ inch	0-35(5)	90-100(3)	100 ⁽¹⁾			
½ inch	0-8(3)	0-35(5)	90-100(3)	100 ⁽¹⁾		
⅜ inch	—	0-12(3)	0-35(5)	85-100(3)	100 ⁽¹⁾	100 ⁽¹⁾
No. 4	—	—	0-12(3)	0-35(5)	85-100(3)	85-100 ⁽¹⁾
No. 8	—	—	—	0-8(3)	0-23(4)	—
No. 200	0-1(1)	0-1(1)	0-1(1)	0-1(1)	0-1(1)	0-10 ⁽¹⁾

(1) Statistical procedures do not apply.

() The value in the parentheses is the allowable deviation (±) from the target values.

705 - Rock

705.02_nat_us_08_05_2009

705.02 Riprap Rock.

Delete Table 705-1 and replace it with the following:

Gradation Requirements for Riprap

Class	Percent of Rock by Mass	Mass (pounds)	Approximate Cubic Dimension^{b,c} (inches)
1	20	22 to 33	6 to 8
	30	11 to 22	5 to 6
	40	1 to 11	2 to 5
	10 ^a	0 to 1	0 to 2
2	20	55 to 110	8 to 10
	30	22 to 55	6 to 8
	40	2 to 22	3 to 6
	10 ^a	0 to 2	0 to 3
3	20	220 to 330	14 to 16
	30	110 to 220	10 to 14
	40	11 to 110	5 to 10
	10 ^a	0 to 11	0 to 5
4	20	550 to 770	18 to 20
	30	220 to 570	14 to 18
	40	22 to 220	6 to 14
	10 ^a	0 to 22	0 to 6
4a	20	770 to 1353	20 to 24
	30	330 to 770	16 to 20
	40	33 to 330	7 to 16
	10 ^a	0 to 33	0 to 7
5	20	1540 to 2200	26 to 28
	30	1100 to 1540	20 to 26
	40	55 to 1100	8 to 20
	10 ^a	0 to 55	0 to 8
6	20	1870 to 3520	28 to 34
	30	1100 to 1870	22 to 28
	40	110 to 1100	10 to 22
	10 ^a	0 to 110	0 to 10
7	20	4400 to 5940	35 to 39
	30	2200 to 4400	28 to 35
	40	220 to 2200	14 to 28

	10 ^a	0 to 220	0 to 14
8	20	7000 to 10000	42 to 47
	30	4000 to 7000	35 to 42
	40	400 to 4000	16 to 35
	10 ^a	0 to 400	0 to 16

- (a) Furnish spall and rock fragments graded to provide a stable dense mass.
- (b) The volume of a rock with these cubic dimensions has a mass approximately equal to the specified rock mass.
- (c) Furnish rock with breadth and thickness at least one-third its length.

718 - Traffic Signing and Marking Material

718.05_nat_us_08_05_2009

718.05 Aluminum Panels

Delete the third paragraph and replace with the following:

Clean, degrease and properly prepare the panels according to methods recommended by the sheeting manufacturer. Conversion coatings will conform to ASTM B-921 or ASTM B-449.

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

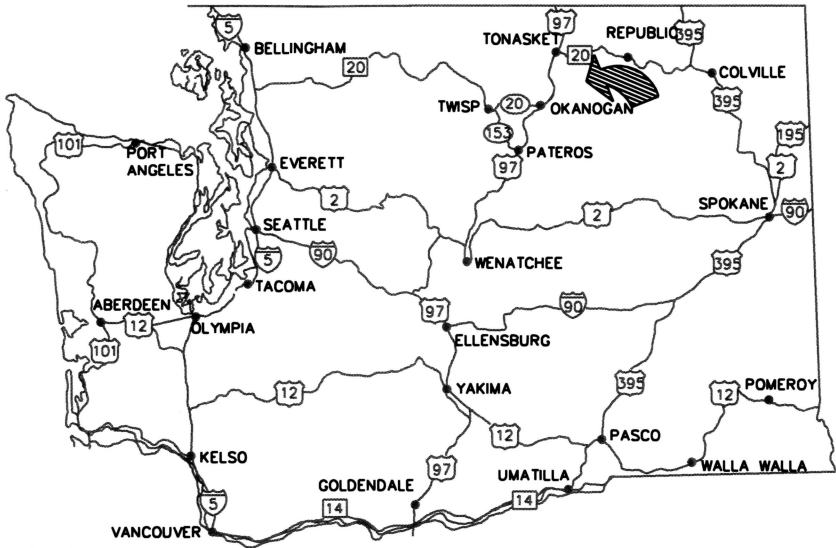
REGION 6

OKANOGAN - WENATCHEE NATIONAL FORESTS

Tonasket Ranger District

CONSTRUCTION DRAWINGS FOR

BR SBA



KEY MAP OF WASHINGTON SHOWING LOCATION OF PROJECT

INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	TITLE
2	VICINITY MAP
3-5	ESTIMATE OF QUANTITIES
6	NOTES, SYMBOLS, & TYPICAL DETAILS
7	ROAD STRUCTURE DETAILS
8	CLEARING FOR RECONSTRUCTION
9	DRAIN DIP DETAIL
10	WORK DESCRIPTIONS
11	PLAN & PROFILE Rd. 3000294-III
12-13	PLAN & PROFILE Rd. 3000605

ROAD NO.	LENGTH MILES	RECONST./CONST.	SHEET NO.
3000290	0.07	RECONST	10
3000292	0.03	RECONST	10
3000294-I	0.02	RECONST	10
3000294-II	0.03	RECONST	10
3000294-III	0.17	RECONST	11
3000294-IV	0.07	RECONST	10
3000294-V	0.08	RECONST	10
3000295	0.40	RECONST	10
3000605	0.60	CONST	12-13
3000500	0.09	RECONST	10
3000510	0.05	RECONST	10
3000520	0.05	RECONST	10
3000530	1.07	RECONST	10
3000650	0.01	RECONST	10

TOTAL CONSTRUCTION 0.60 MILES
TOTAL RECONSTRUCTION 2.14 MILES

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R-6
PACIFIC NORTHWEST REGION

Reviewed and Approved By

Dale Olson
District Ranger
Stephen Paulman
Forest Engineer

12/8/11
Date
1/10/12
Date

Reviewed and Approved By

Blake
Zone Engineer

1/10/12
Date

Donna
Designed By
Shawn Stagg
Reviewed By
12/6/11
Date
12/6/11
Date

Sheet

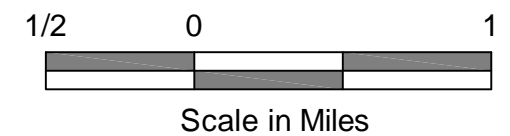
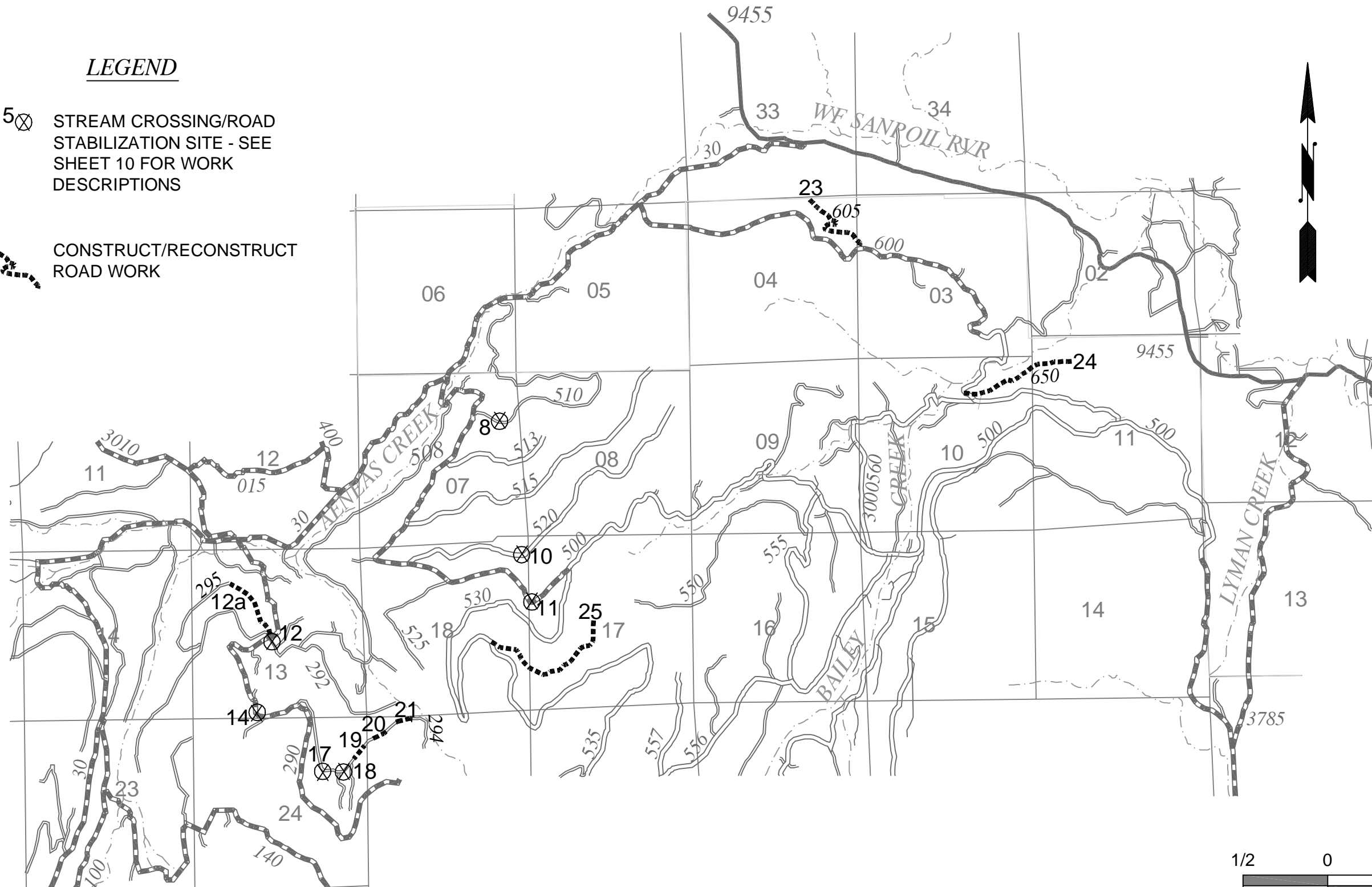
Title

Sheet

1

LEGEND

- 5⊗ STREAM CROSSING/ROAD
STABILIZATION SITE - SEE
SHEET 10 FOR WORK
DESCRIPTIONS
- 23 CONSTRUCT/RECONSTRUCT
ROAD WORK



ESTIMATE OF QUANTITIES

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ESTIMATE OF QUANTITIES

Page 4

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ESTIMATE OF QUANTITIES

page 5

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Notes, Symbols & Typical Details

DISPOSAL OF MERCHANTABLE TIMBER (TIMBER MEETING UTILIZATION STANDARDS):

Merchantable timber (timber Meeting Utilization Standards) will be decked in locations shown on drawings, within reach of standard loading equipment.

To meet minimum tree specifications, trees must be equal or exceed 5-inches DBH and contain at least one minimum piece. Such timber will be felled and bucked into log lengths not exceeding 52 ft. Pieces (logs) will also be considered as meeting Utilization Standards, and be required to be decked, when such pieces would have met Utilization Standards if bucking lengths were varied to include such material. Merchantable timber shall be limbed and bucked. Log decks shall be free of slash and debris. Material not meeting Utilization Standards, including any material remaining after deck removal, shall be disposed of as other construction slash pursuant to Specification 201.04.

MINIMUM UTILIZATION STANDARDS ARE:

LENGTH	DIAMETER	OTHER
12 feet	(Inside bark at the small end)	40 Net Scale in Percent Gross
	4 inches	
	Lodgepole Pine – 4 inches	

STANDARD BUCKING LENGTHS

PONDEROSA PINE and LODGEPOLE PINE: Multiples of 16 feet plus trim. See footnotes 1/ and 2/.
DOUGLAS-FIR, WESTERN LARCH, and OTHER SPECIES: Multiples of 8 FEET plus trim.

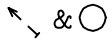
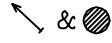
1/ Unless otherwise agreed upon, logs shall be cut to the above specified log lengths wherever possible. Where other lengths are necessary to obtain maximum utilization due to breaks or to specified top diameters, logs should be bucked to multiples of 2 feet plus trim.

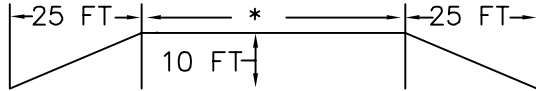
2/ Trim allowance is 6-inches for each 20 feet of log length as shown below:

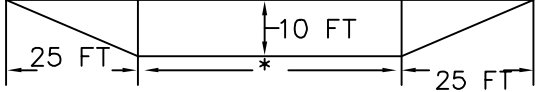
8 to 20 foot lengths	– 6-inches of trim
21 to 40 foot lengths	– 12-inches of trim
+41 foot plus	– 18-inches of trim

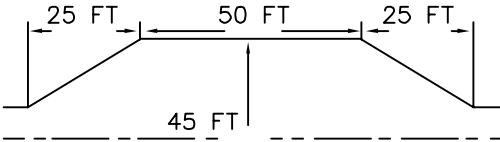

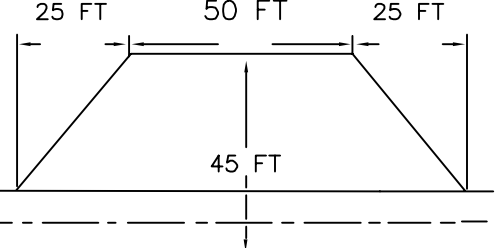
DISPOSAL OF UNMERCHANTABLE TIMBER: Logs not meeting Utilization Standards which are suitable for use as firewood, may be scattered or decked. Material not suitable for firewood shall be treated by other slash methods.

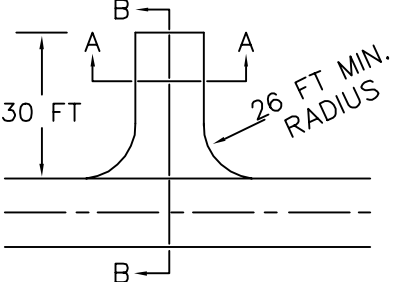

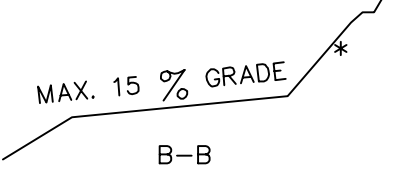
STAKES: All stakes shall have the following minimum nominal dimensions. Hubs shall be 2 in X 2 in X 8 in, Guard, reference, slope, and other stakes shall be 0.3 in X 1.5 in X 18 in. Lath shall be 0.4 in X 1.5 in X 3 ft. Other dimensions and materials may be used, such as steel reinforcing bars and metal pins, if approved by the Engineer. The color of paint or flagging, as well as the colors for use on stakes for clearing, reference, structures, slope staking, and shall be fluorescent orange. Other colors may be used if approved in writing by the Engineer.

SYMBOLS	DESCRIPTION
BOP, EOP	BEGINNING OF PROJECT, END OF PROJECT
CW	CURVE WIDENING
FW	FULL WIDTH AREA*
TOL, TOR, TOS	TURNOUT LEFT/RIGHT/SPLIT
V	DRAIN DIP
LOD	LEAD-OUT DITCH
	CULVERT (EXISTING)
	CULVERT (INSTALL)

TURNOUT


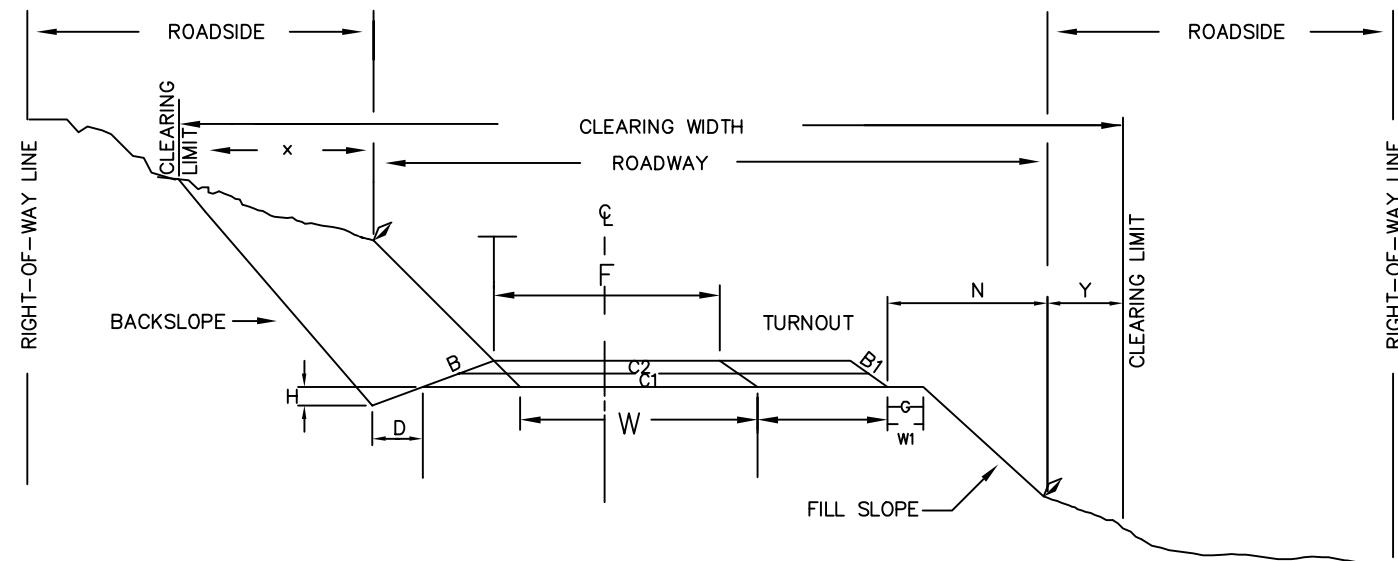
ROAD
* FULL WIDTH AREA. 50 FT MIN. OR AS SHOWN ON DRAWINGS. 

TURNAROUND



LT./RT.

"J" HOLE



* BACKSLOPES SHALL CONFORM TO CONSTRUCTION TOLERANCES ON ROAD STRUCTURE DETAILS SHEET.



Road Structure Details



Limbs overhanging the roadway shall be trimmed to a minimum height of 16 feet above the roadbed.

W1 - EXTRA ROADBED WIDTH WHEN SUBBASE, BASE COURSE, SURFACE COURSE, CURVE WIDENING, FILL WIDENING AND/OR TURNOUTS ARE SPECIFIED.

[illegible]

- * CLEARING DIMENSIONS FOR ROADS TO BE RECONSTRUCTED ARE SHOWN ON SHEET 8.
- (1) CURVE WIDENING, WHEN SPECIFIED, SHALL BE ADDED TO THE INSIDE OF THE CURVE.
- (2) ROADBED WIDTH, FILL WIDENING, TURNOUT LENGTHS, FILL AND BACKSLOPE RATIO SHALL BE AS SPECIFIED IN CONSTRUCTION STAKING NOTES AND/OR DRAWINGS.
- (3) SEEDING, FERTILIZING AND/OR MULCHING AREA INCLUDES M, N, X & Y SHOWN ON THE TYPICALS AND ALL OTHER AREAS DISTURBED BY CONSTRUCTION (INCLUDES BURN BAYS AND DECKING AREAS).
- (4) TURNOUTS, TURNAROUNDS AND CURVE WIDENING SHALL BE SURFACED TO THE SAME DEPTH AS THE TRAVELED WAY AND TO THE DIMENSIONS SPECIFIED IN CONSTRUCTION STAKING NOTES AND/OR DRAWINGS.
- (5) ROADBED TEMPLATE TYPES ARE SHOWN ON THE DRAWINGS AND SHALL BE CONSTRUCTED TO THE FOLLOWING TOLERANCE:

OUTSLOPE (OUT):	0 TO 5	%
INSLOPE (IN):	2 TO 5	%
CROWN (CR):	2 TO 4	%
- (6) FINISHING ROADBED:
 - d. ROCKS PROTRUDING MORE THAN 2.0 INCHES ABOVE THE SUBGRADE SHALL BE REDUCED TO THE FINISHED SUBGRADE OR REMOVED. NO OVERSIZE MATERIAL SHALL BE LEFT ON THE SHOULDERS OR IN THE DITCHES. OVERSIZE MATERIAL IS DEFINED AS ROCKS 2 in OR GREATER IN DIMENSION.
- (7) DITCHES ARE TO BE CONSTRUCTED ONLY WHERE NOTED ON THE RECONSTRUCTION SUMMARY SHEETS OR PLAN AND PROFILE SHEETS.

(SP) CONSTRUCTION TOLERANCE: Where construction stakes are not

specified and clearing limit marking is the only control required, the following shall govern, unless otherwise shown on the drawings.

Grub stumps within roadway and in accordance with Spec. 201.05.

ROADBED WIDTH: as shown in column "W", plus curve widening, turnout widths, and fill widening.

CENTERLINE ALIGNMENT - 50 FOOT MINIMUM RADIUS CURVE.

GRADE - CHANGE BETWEEN GRADES SHALL BE UNIFORM AND NOT EXCEED 10 PERCENT IN 25 FEET.

MAXIMUM GRADE: – 10 PERCENT FAVORABLE
 – 10 ADVERSE

FILL - NATURAL CATCH OBTAINED USING SIDE CAST
CONSTRUCTION METHOD.

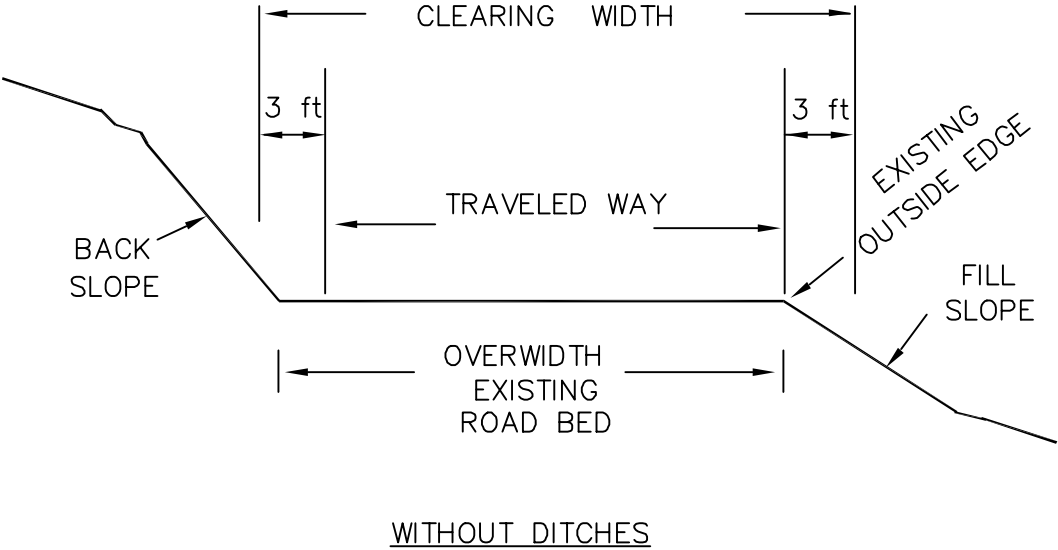
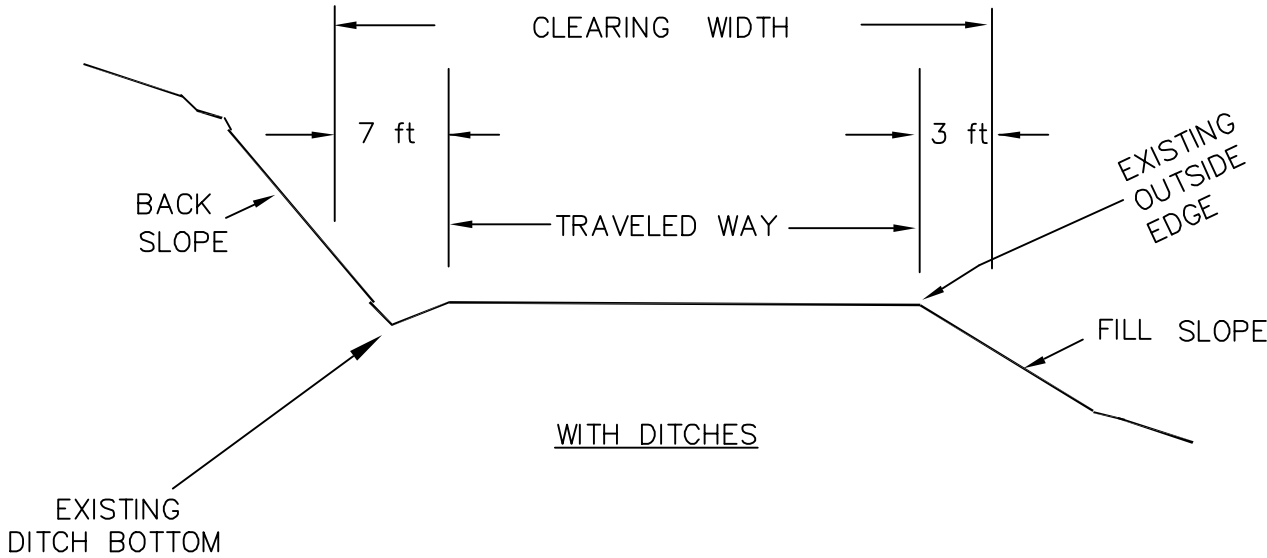
BACKSLOPE - COMMON 2 V : 1 H, ON FLAT GROUND, CUTS UNDER 3 FEET

COMMON 1 V : 1 H, UNDER 55% TO 3/4 V : 1 H, OVER 55%

RIPPABLE 1/2 V : 1 H

SOLID 1/4 V : 1 H

TYPICAL CLEARING FOR RECONSTRUCTION ONLY



CROSS SECTIONAL VIEWS NOT TO SCALE

WITHIN ROAD SEGMENTS WITH EXISTING DITCHES,
OR DITCHES TO BE CONSTRUCTED:

CLEARING WIDTH SHALL BE A MINIMUM OF THE
TRAVELED WAY WIDTH PLUS 10 FEET.

CLEARING LIMIT ON DITCHED SIDE OF ROAD SHALL
BE THE TRAVELEDWAY WIDTH PLUS 7 FEET.

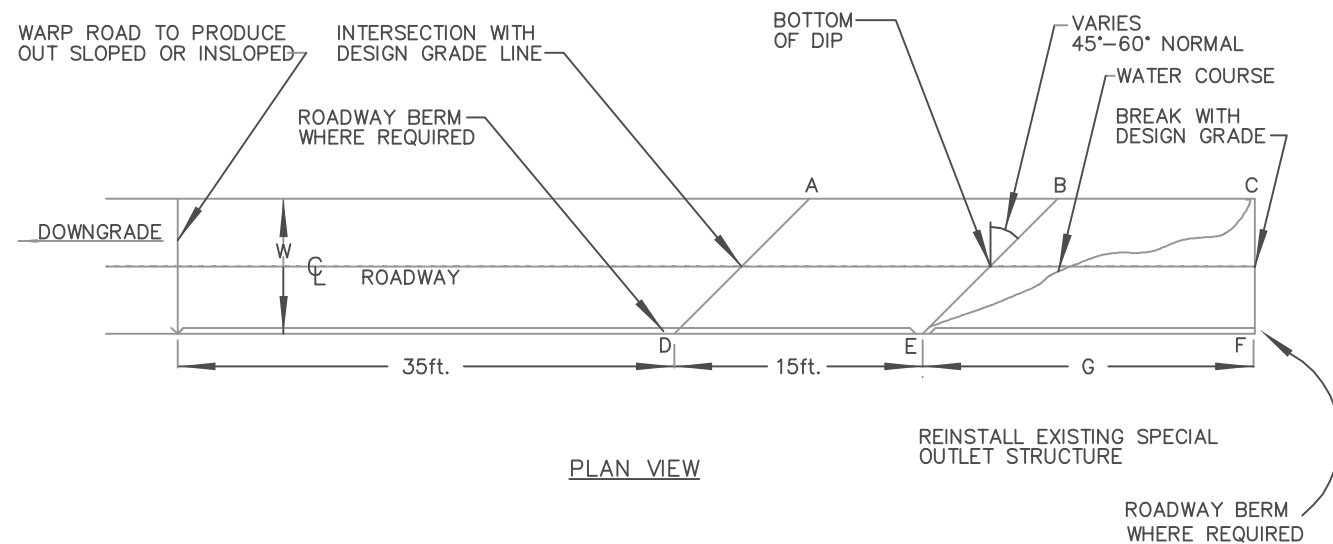
GENERAL NOTES:

- 1. REFER TO ROAD STRUCTURE DETAILS, SHEET 7
FOR TRAVELED WAY WIDTHS.
- 2. CLEARING LIMITS SHALL BE 3 FEET BEYOND
THE EXISTING OUTSIDE EDGE OF ROAD.
- 3. All trees within the clearing limits on
the fill slope that are 7 inches and
larger at DBH shall remain. Trim
branches on remaining trees to give
clear height of 16 feet above roadbed.

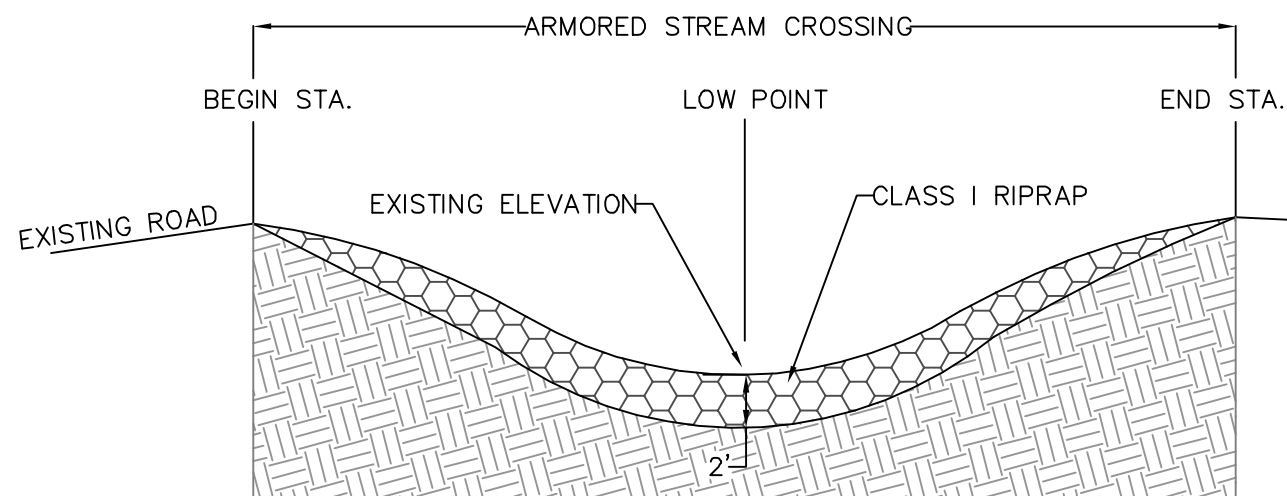
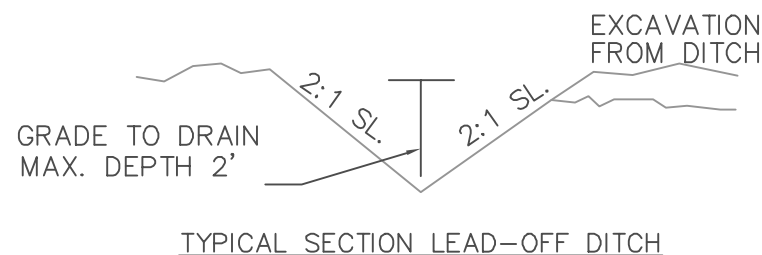
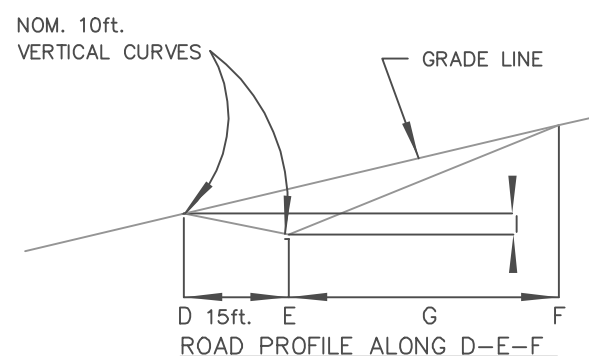
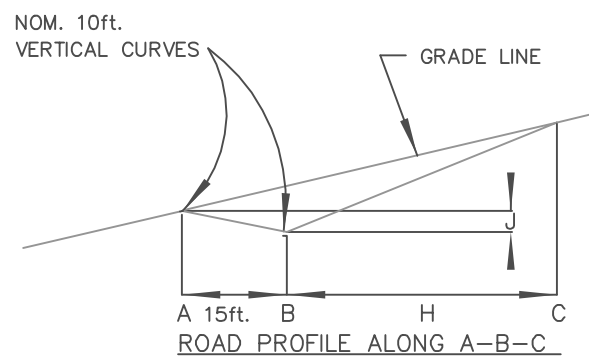
WITHIN ROAD SEGMENTS WITHOUT EXISTING DITCHES:

CLEARING WIDTH SHALL BE A MINIMUM OF THE
TRAVELED WAY WIDTH PLUS 7 FEET.

CLEARING LIMIT ON INSIDE OF ROAD SHALL BE THE
TRAVELEDWAY WIDTH PLUS 3 FEET.

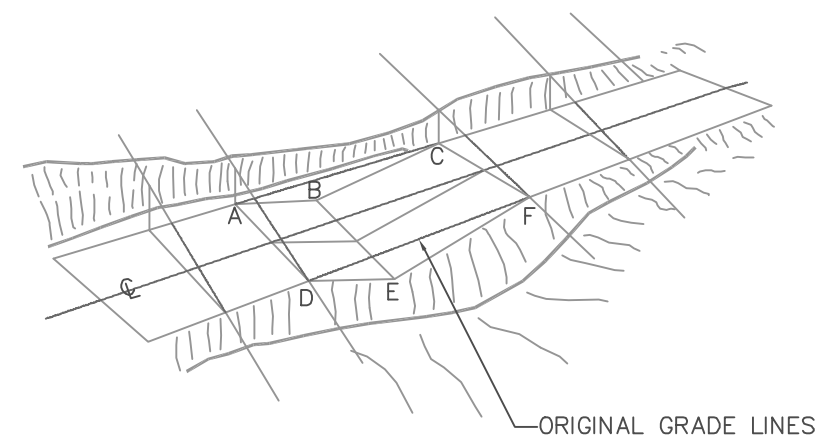


PLAN VIEW



ALL NUMBERS ARE IN FEET
UNLESS STATED OTHERWISE

%	W=12ft. TO 14ft.				W=24ft.			
	LENGTH		DEPTH		LENGTH		DEPTH	
ROAD GRADE	G	H	I	J	G	H	I	J
UNDER 3	62	50	0.66	0.30	74	50	1.15	0.30
7	72	60	0.66	0.20	84	60	1.25	0.20
9	82	70	0.66	0.10	94	70	1.31	0.10



PERSPECTIVE VIEW

NOTE: PLAN SHOWN IS FOR OUTSLOPED ROLLING DIP. DIPS MAY BE EITHER INSLOPED OR OUTSLOPED. WHEN INSLOPED, DIPS SHALL DISCHARGE INTO A CULVERT, DROP INLET, OVERSIDE DRAIN OR ONTO NATURAL GROUND. THE MINIMUM CROSS GRADE FROM "B" TO "E" IS 4% GREATER THAN THE ORIGINAL ROAD GRADE.

MAP REFERENCE	FS RD NUMBER	STATION	WORK DESCRIPTION	MAP REFERENCE	FS RD NUMBER	STATION	WORK DESCRIPTION	MAP REFERENCE	FS RD NUMBER	STATION	WORK DESCRIPTION
⑧	3000 510 T35N R30E S07	0+00 0+67 2+37	BEGIN 6" COMPACTED AGG EXISTING CMP END AGG EOP	⑭	3000 290 T35N R29E S13	0+00 2+72 4+20	BEGIN 6" COMPACTED AGG EXISTING CMP CONSTRUCT DRAIN DIP END AGG EOP	②④	3000 650 T35N R30E S10	1+60 8+42 8+83 9+09	REMOVE EXISTING BERM BEGIN CONSTRUCT ARMORED STREAM CROSSING (SEE SHEET 13) EXCAVATE 2' BELOW EXISTING LOW POINT END CONSTRUCT ARMORED STREAM CROSSING
⑩	3000 520 T35N R30E S18	0+00 1+10 3+10	BEGIN 6" COMPACTED AGG EXISTING CMP END AGG EOP	⑰	3000 294 SEGMENT I T35N R29E S24	0+00 0+69 1+34	BEGIN 6" COMPACTED AGG EXISTING CMP END AGG EOP				
⑪	3000 500 T35N R30E S17	0+00 3+72 4+72	BEGIN 6" COMPACTED AGG EXISTING CMP CONSTRUCT DRAIN DIP END AGG EOP	⑱	3000 294 SEGMENT II T35N R29E S24	0+00 0+87 1+90	BEGIN 6" COMPACTED AGG CONSTRUCT DRAIN DIP EXISTING CMP CONSTRUCT DRAIN DIP END AGG EOP	②⑤	3000 530 T35N R30E S18	0+00 22+00 27+80 38+49 38+89 39+14 41+80 57+00	BEGIN ROAD RECONDITIONING, 14 FT ROAD BEGIN CLEARING AND GRUBBING CLEAN EXISTING CMP - INLET/OUTLET CLEAN EXISTING CMP - INLET/OUTLET BEGIN CONSTRUCT ARMORED STREAM CROSSING REMOVE EXISTING 18" CMP EXCAVATE 2 FT BELOW EXISTING LOW POINT ELEV. END CONSTRUCT ARMORED STREAM CROSSING CLEAN EXISTING CMP - INLET/OUTLET END ROAD RECONDITIONING END CLEARING AND GRUBBING
⑫	3000 292 T35N R29E S13	0+00 1+09 2+09	BEGIN 6" COMPACTED AGG EXISTING CMP CONSTRUCT DRAIN DIP END AGG EOP								
⑫a	3000 295 T35N R29E S13	0+00 6+65 6+72 6+80 20+38	BEGIN CLEARING & GRUBBING ROAD RECONDITIONING 14' ROAD WIDTH BEGIN PLACED RIPRAP, 10 CY LOW POINT OF DRAINAGE END PLACED RIPRAP END PROJECT	⑲	3000 294 SEGMENT III T35N R29E S24		SEE PLAN & PROFILE SHEET 11				
				⑳	3000 294 SEGMENT IV T35N R30E S19	0+00 1+20 3+05 3+85	BEGIN CLEARING & GRUBBING ROAD RECONDITIONING 14' ROAD WIDTH BEGIN DITCH RECONDITIONING END DITCH RECONDITIONING EXISTING CMP, CLEAN INLET & OUTLET END PROJECT				
				㉑	3000 294 SEGMENT V T35N R30E S19	0+00 2+00 2+56 4+56	BEGIN CLEARING & GRUBBING ROAD RECONDITIONING 14' ROAD WIDTH BEGIN DITCH RECONDITIONING, RIGHT END DITCH RECONDITIONING, RIGHT EXISTING CMP, CLEAN INLET & OUTLET END PROJECT				
				㉓	3000 605 T35N R30E S03		SEE PLAN & PROFILE SHEETS 12-13				

NOTES:
LOCATIONS WILL BE MARKED BY ENGINEER.

SEE DRAIN DIP DETAILS ON SHEET 9.

EXISTING CULVERTS TO BE REMOVED SHALL BE REMOVED FROM GOV'T LANDS.

AGGREGATE SHALL BE OBTAINED FROM A CONTRACTOR LOCATED SOURCE.

RIPRAP SHALL BE OBTAINED FROM A CONTRACTOR LOCATED SOURCE.

EXISTING CMP'S ARE SHOWN FOR STATION REFERENCE ONLY, UNLESS OTHERWISE SPECIFIED.

ABBREVIATIONS
AGG = AGGREGATE
PVT = PRIVATE
CMP = CORRUGATED METAL PIPE
EOP = END OF PROJECT

Begin Project

